INTERNET OF THINGS TECHNOLOGY
[As per Choice Based Credit System (CBCS) scheme]
(Effective from the academic year 2017 - 2018)
SEMESTER – VIII

Subject Code	**17CS81**	IA Marks	40
Number of Lecture Hours/Week	04	Exam Marks	60
Total Number of Lecture Hours	50	Exam Hours	03

CREDITS – 04

Module – 1	**Teaching Hours**
What is IoT, Genesis of IoT, IoT and Digitization, IoT Impact, Convergence of IT and IoT, IoT Challenges, IoT Network Architecture and Design, Drivers Behind New Network Architectures, Comparing IoT Architectures, A Simplified IoT Architecture, The Core IoT Functional Stack, IoT Data Management and Compute Stack.	**10 Hours**
Module – 2	
Smart Objects: The "Things" in IoT, Sensors, Actuators, and Smart Objects, Sensor Networks, Connecting Smart Objects, Communications Criteria, IoT Access Technologies.	**10 Hours**
Module – 3	
IP as the IoT Network Layer, The Business Case for IP, The need for Optimization, Optimizing IP for IoT, Profiles and Compliances, Application Protocols for IoT, The Transport Layer, IoT Application Transport Methods.	**10 Hours**
Module – 4	
Data and Analytics for IoT, An Introduction to Data Analytics for IoT, Machine Learning, Big Data Analytics Tools and Technology, Edge Streaming Analytics, Network Analytics, Securing IoT, A Brief History of OT Security, Common Challenges in OT Security, How IT and OT Security Practices and Systems Vary, Formal Risk Analysis Structures: OCTAVE and FAIR, The Phased Application of Security in an Operational Environment	**10 Hours**
Module – 5	
IoT Physical Devices and Endpoints - Arduino UNO: Introduction to Arduino, Arduino UNO, Installing the Software, Fundamentals of Arduino Programming. IoT Physical Devices and Endpoints - RaspberryPi: Introduction to RaspberryPi, About the RaspberryPi Board: Hardware Layout, Operating Systems on RaspberryPi, Configuring RaspberryPi, Programming RaspberryPi with Python, Wireless Temperature Monitoring System Using Pi, DS18B20 Temperature Sensor, Connecting Raspberry Pi via SSH, Accessing Temperature from DS18B20 sensors, Remote access to RaspberryPi, Smart and Connected Cities, An IoT Strategy for Smarter Cities, Smart City IoT Architecture, Smart City Security Architecture, Smart City Use-Case Examples.	**10 Hours**

Course Outcomes: After studying this course, students will be able to

- Interpret the impact and challenges posed by IoT networks leading to new architectural models.
- Compare and contrast the deployment of smart objects and the technologies to connect them to network.

- Appraise the role of IoT protocols for efficient network communication.
- Elaborate the need for Data Analytics and Security in IoT.
- Illustrate different sensor technologies for sensing real world entities and identify the applications of IoT in Industry.

Question paper pattern:

The question paper will have ten questions.
There will be 2 questions from each module.
Each question will have questions covering all the topics under a module.
The students will have to answer 5 full questions, selecting one full question from each module.

Text Books:

1. David Hanes, Gonzalo Salgueiro, Patrick Grossetete, Robert Barton, Jerome Henry,**"IoT Fundamentals: Networking Technologies, Protocols, and Use Cases for the Internet of Things",** 1st Edition, Pearson Education (Cisco Press Indian Reprint). (**ISBN:** 978-9386873743)
2. Srinivasa K G, **"Internet of Things",**CENGAGE Leaning India, 2017

Reference Books:

1. Vijay Madisetti and ArshdeepBahga, **"Internet of Things (A Hands-on-Approach)",** 1st Edition, VPT, 2014. (**ISBN:** 978-8173719547)
2. Raj Kamal, **"Internet of Things: Architecture and Design Principles",** 1st Edition, McGraw Hill Education, 2017. (**ISBN:** 978-9352605224)

BIG DATA ANALYTICS
[As per Choice Based Credit System (CBCS) scheme]
(Effective from the academic year 2017 - 2018)
SEMESTER – VIII

Subject Code	17CS82	IA Marks	40
Number of Lecture Hours/Week	4	Exam Marks	60
Total Number of Lecture Hours	50	Exam Hours	03

CREDITS – 04

Module – 1	**Teaching Hours**
Hadoop Distributed File System Basics, Running Example Programs and Benchmarks, Hadoop MapReduce Framework, MapReduce Programming	**10 Hours**
Module – 2	
Essential Hadoop Tools, Hadoop YARN Applications, Managing Hadoop with Apache Ambari, Basic Hadoop Administration Procedures	**10 Hours**
Module – 3	
Business Intelligence Concepts and Application, Data Warehousing, Data Mining, Data Visualization	**10 Hours**
Module – 4	
Decision Trees, Regression, Artificial Neural Networks, Cluster Analysis, Association Rule Mining	**10 Hours**
Module – 5	
Text Mining, Naïve-Bayes Analysis, Support Vector Machines, Web Mining, Social Network Analysis	**10 Hours**

Course outcomes: The students should be able to:

- Explain the concepts of HDFS and MapReduce framework
- Investigate Hadoop related tools for Big Data Analytics and perform basic Hadoop Administration
- Recognize the role of Business Intelligence, Data warehousing and Visualization in decision making
- Infer the importance of core data mining techniques for data analytics
- Compare and contrast different Text Mining Techniques

Question paper pattern:
The question paper will have ten questions.
There will be 2 questions from each module.
Each question will have questions covering all the topics under a module.
The students will have to answer 5 full questions, selecting one full question from each module.

Text Books:

1. Douglas Eadline,**"Hadoop 2 Quick-Start Guide: Learn the Essentials of Big Data Computing in the Apache Hadoop 2 Ecosystem",** 1st Edition, Pearson Education, 2016. ISBN-13: 978-9332570351
2. Anil Maheshwari, **"Data Analytics",** 1st Edition, McGraw Hill Education, 2017. ISBN-13: 978-9352604180

Reference Books:

1) Tom White, **"Hadoop: The Definitive Guide",** 4th Edition, O'Reilly Media, 2015.ISBN-13: 978-9352130672
2) Boris Lublinsky, Kevin T.Smith, Alexey Yakubovich,**"Professional Hadoop**

Solutions", 1st Edition, Wrox Press, 2014ISBN-13: 978-8126551071
3) Eric Sammer,**"Hadoop Operations: A Guide for Developers and Administrators",**1st Edition, O'Reilly Media, 2012.ISBN-13: 978-9350239261

HIGH PERFORMANCE COMPUTING
[As per Choice Based Credit System (CBCS) scheme]
(Effective from the academic year 2017 - 2018)
SEMESTER – VIII

Subject Code	17CS831	IA Marks	40
Number of Lecture Hours/Week	3	Exam Marks	60
Total Number of Lecture Hours	40	Exam Hours	03

CREDITS – 03

Module – 1	**Teaching Hours**
Introduction: Computational Science and Engineering: Computational Science and Engineering Applications; characteristics and requirements, Review of Computational Complexity, Performance: metrics and measurements, Granularity and Partitioning, Locality: temporal/spatial/stream/kernel, Basic methods for parallel programming, Real-world case studies (drawn from multi-scale, multi-discipline applications)	**08 Hours**
Module – 2	
High-End Computer Systems : Memory Hierarchies, Multi-core Processors: Homogeneous and Heterogeneous, Shared-memory Symmetric Multiprocessors, Vector Computers, Distributed Memory Computers, Supercomputers and Petascale Systems, Application Accelerators / Reconfigurable Computing, Novel computers: Stream, multithreaded, and purpose-built	**08 Hours**
Module – 3	
Parallel Algorithms: Parallel models: ideal and real frameworks, Basic Techniques: Balanced Trees, Pointer Jumping, Divide and Conquer, Partitioning, Regular Algorithms: Matrix operations and Linear Algebra, Irregular Algorithms: Lists, Trees, Graphs, Randomization: Parallel Pseudo-Random Number Generators, Sorting, Monte Carlo techniques	**08 Hours**
Module – 4	
Parallel Programming: Revealing concurrency in applications, Task and Functional Parallelism, Task Scheduling, Synchronization Methods, Parallel Primitives (collective operations), SPMD Programming (threads, OpenMP, MPI), I/O and File Systems, Parallel Matlabs (Parallel Matlab, Star-P, Matlab MPI), Partitioning Global Address Space (PGAS) languages (UPC, Titanium, Global Arrays)	**08 Hours**
Module – 5	
Achieving Performance: Measuring performance, Identifying performance bottlenecks, Restructuring applications for deep memory hierarchies, Partitioning applications for heterogeneous resources, using existing libraries, tools, and frameworks	**08 Hours**

Course outcomes: The students should be able to:

- Illustrate the key factors affecting performance of CSE applications
- Illusrate mapping of applications to high-performance computing systems
- Apply hardware/software co-design for achieving performance on real-world applications

Question paper pattern:
The question paper will have ten questions.
There will be 2 questions from each module.

Each question will have questions covering all the topics under a module.
The students will have to answer 5 full questions, selecting one full question from each module.

Text Books:

1. Introduction to Parallel Computing, AnanthGrama, Anshul Gupta, George Karypis, and Vipin Kumar, 2nd edition, Addison-Welsey, 2003.
2. Petascale Computing: Algorithms and Applications, David A. Bader (Ed.), Chapman & Hall/CRC Computational Science Series, 2007

Reference Books:

1. Grama, A. Gupta, G. Karypis, V. Kumar, An Introduction to Parallel Computing, Design and Analysis of Algorithms: 2/e, Addison-Wesley, 2003.
2. G.E. Karniadakis, R.M. Kirby II, Parallel Scientific Computing in C++ and MPI: A Seamless Approach to Parallel Algorithms and their Implementation, Cambridge University Press,2003.
3. Wilkinson and M. Allen, Parallel Programming: Techniques and Applications Using Networked Workstations and Parallel Computers, 2/E, Prentice Hall, 2005.
4. M.J. Quinn, Parallel Programming in C with MPI and OpenMP, McGraw-Hill, 2004.
5. G.S. Almasi and A. Gottlieb, Highly Parallel Computing, 2/E, Addison-Wesley, 1994.
6. David Culler Jaswinder Pal Singh,"Parallel Computer Architecture: A hardware/Software Approach", Morgan Kaufmann, 1999.
7. Kai Hwang, "Scalable Parallel Computing", McGraw Hill 1998.

USER INTERFACE DESIGN
[As per Choice Based Credit System (CBCS) scheme]
(Effective from the academic year 2016 -2017)
SEMESTER – VIII

Subject Code	17CS832	IA Marks	40
Number of Lecture Hours/Week	03	Exam Marks	60
Total Number of Lecture Hours	40	Exam Hours	03

CREDITS – 03

Course Objectives: This course will enable students

- To study the concept of menus, windows, interfaces.
- To study about business functions.
- To study the characteristics and components of windows and the various controls for the windows.
- To study about various problems in window design with text, graphics.
- To study the testing methods.

Module –1	**Teaching Hours**
The User Interface-Introduction, Overview, The importance of user interface – Defining the user interface, The importance of Good design, Characteristics of graphical and web user interfaces, Principles of user interface design.	**08 Hours**
Module –2	
The User Interface Design process- Obstacles, Usability, Human characteristics in Design, Human Interaction speeds, Business functions-Business definition and requirement analysis, Basic business functions, Design standards.	**08 Hours**
Module –3	
System menus and navigation schemes- Structures of menus, Functions of menus, Contents of menus, Formatting of menus, Phrasing the menu**,** Selecting menu choices, Navigating menus, Kinds of graphical menus.	**08 Hours**
Module–4	
Windows **-** Characteristics, Components of window, Window presentation styles, Types of window, Window management, Organizing window functions, Window operations, Web systems, Characteristics of device based controls.	**08 Hours**
Module–5	
Screen based controls- Operable control, Text control, Selection control, Custom control, Presentation control, Windows Tests-prototypes, kinds of tests.	**08 Hours**

Course outcomes: The Students should be able to:

- Design the User Interface, design, menu creation ,windows creation and connection between menus and windows.

Question paper pattern:
The question paper will have ten questions.
There will be 2 questions from each module.
Each question will have questions covering all the topics under a module.
The students will have to answer 5 full questions, selecting one full question from each module.

Text Book:

1. Wilbert O. Galitz, "The Essential Guide to User Interface Design", John Wiley & Sons, Second Edition 2002.

Reference Books:

1. Ben Sheiderman, “Design the User Interface”, Pearson Education, 1998.
2. Alan Cooper, ”The Essential of User Interface Design”, Wiley- Dream Tech Ltd.,2002

NETWORK MANAGEMENT [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2017 - 2018) SEMESTER – VIII			
Subject Code	17CS833	IA Marks	40
Number of Lecture Hours/Week	3	Exam Marks	60
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 03			

Module – 1	**Teaching Hours**
Introduction: Analogy of Telephone Network Management, Data and Telecommunication Network Distributed computing Environments, TCP/IP-Based Networks: The Internet and Intranets, Communications Protocols and Standards- Communication Architectures, Protocol Layers and Services; Case Histories of Networking and Management – The Importance of topology , Filtering Does Not Reduce Load on Node, Some Common Network Problems; Challenges of Information Technology Managers, Network Management: Goals, Organization, and Functions- Goal of Network Management, Network Provisioning, Network Operations and the NOC, Network Installation and Maintenance; Network and System Management, Network Management System platform, Current Status and Future of Network Management.	**8 Hours**
Module – 2	
Basic Foundations: Standards, Models, and Language: Network Management Standards, Network Management Model, Organization Model, Information Model – Management Information Trees, Managed Object Perspectives, Communication Model; ASN.1- Terminology, Symbols, and Conventions, Objects and Data Types, Object Names, An Example of ASN.1 from ISO 8824; Encoding Structure; Macros, Functional Model.	**8 Hours**
Module – 3	
SNMPv1 Network Management: Managed Network: The History of SNMP Management, Internet Organizations and standards, Internet Documents, The SNMP Model, The Organization Model, System Overview. The Information Model – Introduction, The Structure of Management Information, Managed Objects, Management Information Base. The SNMP Communication Model – The SNMP Architecture, Administrative Model, SNMP Specifications, SNMP Operations, SNMP MIB Group, Functional Model SNMP Management – RMON: Remote Monitoring, RMON SMI and MIB, RMONI1- RMON1 Textual Conventions, RMON1 Groups and Functions, Relationship Between Control and Data Tables, RMON1 Common and Ethernet Groups, RMON Token Ring Extension Groups, RMON2 – The RMON2 Management Information Base, RMON2 Conformance Specifications.	**8 Hours**
Module – 4	
Broadband Access Networks, Broadband Access Technology; HFCT Technology: The Broadband LAN, The Cable Modem, The Cable Modem Termination System, The HFC Plant, The RF Spectrum for Cable Modem; Data Over Cable, Reference Architecture; HFC Management – Cable Modem and CMTS Management, HFC Link Management, RF Spectrum Management, DSL Technology; Asymmetric Digital Subscriber Line Technology – Role of the	**8 Hours**

ADSL Access Network in an Overall Network, ADSL Architecture, ADSL Channeling Schemes, ADSL Encoding Schemes; ADSL Management – ADSL Network Management Elements, ADSL Configuration Management, ADSL Fault Management, ADSL Performance Management, SNMP-Based ADSL Line MIB, MIB Integration with Interfaces Groups in MIB-2, ADSL Configuration Profiles	
Module – 5	
Network Management Applications: Configuration Management- Network Provisioning, Inventory Management, Network Topology, Fault Management- Fault Detection, Fault Location and Isolation 24 Techniques, Performance Management – Performance Metrics, Data Monitoring, Problem Isolation, Performance Statistics; Event Correlation Techniques – Rule-Based Reasoning, Model-Based Reasoning, CaseBased Reasoning, Codebook correlation Model, State Transition Graph Model, Finite State Machine Model, Security Management – Policies and Procedures, Security Breaches and the Resources Needed to Prevent Them, Firewalls, Cryptography, Authentication and Authorization, Client/Server Authentication Systems, Messages Transfer Security, Protection of Networks from Virus Attacks, Accounting Management, Report Management, Policy- Based Management, Service Level Management.	**8 Hours**
Course outcomes: The students should be able to:	
• Analyze the issues and challenges pertaining to management of emerging network technologies such as wired/wireless networks and high-speed internets. • Apply network management standards to manage practical networks • Formulate possible approaches for managing OSI network model. • Infer SNMP for managing the network • Infer RMON for monitoring the behavior of the network • Identify the various components of network and formulate the scheme for the managing them	
Question paper pattern: The question paper will have ten questions. There will be 2 questions from each module. Each question will have questions covering all the topics under a module. The students will have to answer 5 full questions, selecting one full question from each module.	
Text Books:	
1. Mani Subramanian: Network Management- Principles and Practice, 2nd Pearson Education, 2010.	
Reference Books:	
1. J. Richard Burke: Network management Concepts and Practices: a Hands-On Approach, PHI, 2008.	

SYSTEM MODELLING AND SIMULATION [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2017 - 2018) SEMESTER – VIII			
Subject Code	17CS834	IA Marks	40
Number of Lecture Hours/Week	3	Exam Marks	60
Total Number of Lecture Hours	40	Exam Hours	03
CREDITS – 03			

Module – 1	**Teaching Hours**
Introduction: When simulation is the appropriate tool and when it is not appropriate, Advantages and disadvantages of Simulation; Areas of application, Systems and system environment; Components of a system; Discrete and continuous systems, Model of a system; Types of Models, Discrete-Event System Simulation Simulation examples: Simulation of queuing systems. **General Principles, Simulation Software:**Concepts in Discrete-Event Simulation. The Event-Scheduling / Time-Advance Algorithm, Manual simulation Using Event Scheduling	**08 Hours**
Module – 2	
Statistical Models in Simulation :Review of terminology and concepts, Useful statistical models,Discrete distributions. Continuous distributions,Poisson process, Empirical distributions. **Queuing Models:**Characteristics of queuing systems,Queuing notation,Long-run measures of performance of queuing systems,Long-run measures of performance of queuing systems cont…,Steady-state behavior of M/G/1 queue, Networks of queues,	**08 Hours**
Module – 3	
Random-NumberGeneration: Properties of random numbers; Generation of pseudo-random numbers, Techniques for generating random numbers,Tests for Random Numbers, **Random-Variate Generation:** ,Inverse transform technique Acceptance-Rejection technique.	**08 Hours**
Module – 4	
Input Modeling: Data Collection; Identifying the distribution with data, Parameter estimation, Goodness of Fit Tests, Fitting a non-stationary Poisson process, Selecting input models without data, Multivariate and Time-Series input models. **Estimation of Absolute Performance:** Types of simulations with respect to output analysis ,Stochastic nature of output data, Measures of performance and their estimation, **Contd..**	**08 Hours**
Module – 5	
Measures of performance and their estimation,Output analysis for terminating simulations Continued..,Output analysis for steady-state simulations. **Verification, Calibration And Validation:** Optimization: Model building, verification and validation, Verification of simulation models, Verification of simulation models,Calibration and validation of models, Optimization via Simulation.	**08 Hours**
Course outcomes: The students should be able to:	

- Explain the system concept and apply functional modeling method to model the activities of a static system
- Describe the behavior of a dynamic system and create an analogous model for a dynamic system;
- Illustrate the operation of a dynamic system and make improvement according to the simulation results.

Question paper pattern:

The question paper will have ten questions.
There will be 2 questions from each module.
Each question will have questions covering all the topics under a module.
The students will have to answer 5 full questions, selecting one full question from each module.

Text Books:

1. Jerry Banks, John S. Carson II, Barry L. Nelson, David M. Nicol: Discrete-Event System Simulation, 5 th Edition, Pearson Education, 2010.

Reference Books:

1. Lawrence M. Leemis, Stephen K. Park: Discrete – Event Simulation: A First Course, Pearson Education, 2006.
2. Averill M. Law: Simulation Modeling and Analysis, 4 th Edition, Tata McGraw-Hill, 2007

INTERNSHIP / PROFESSIONAL PRACTISE
[As per Choice Based Credit System (CBCS) scheme]
(Effective from the academic year 2017 -2018)
SEMESTER – VIII

Subject Code	17CS84	IA Marks	50
Duration	4 weeks	Exam Marks	50
		Exam Hours	03

CREDITS – 02

Description (If any):

With reference to the above subject, this is to inform that the following are the guidelines to be followed for the Internship Programme and the earlier circular as cited in ref (i) is hereby withdrawn:

1) As per the 15OB.9 the Internship Programme duration is of Eight weeks. However it has been reduced to Four weeks and it should be carried out between (VI and VII Semester) Vacation and/or (VII and VIII Semester) Vacation.

2) The internship can be carried out in any Industry/R and D Organization/Research Institute/ Educational institute of repute.

3) The Institutions may also suggest the students to enrol for the Internshala platform for free internships as there is a MoU with the AICTE for the beneficial of the affiliated Institutions (https://internshala.com/)

4) The Examination of Internship will be carried out in line with the University Project Viva-voce examination.

5) (a) The Department/college shall nominate staff member/s to facilitate, guide and supervise students under internship. (b) The Internal Guide has to visit place of internship at least once during the student's internship.

6) The students shall report the progress of the internship to the guide in regular intervals and seek his/her advice.

7) After the completion of Internship, students shall submit a report with completion and attendance certificates to the Head of the Department with the approval of both internal and external guides.

8) The Examination of Internship will be carried out in line with the University Project Viva-voce examination.

9) There will be 50 marks for CIE (Seminar: 25, Internship report: 25) and 50 marks for Viva – Voce conducted during SEE. The minimum requirement of CIE marks shall be 50% of the maximum marks.

10) The internal guide shall award the marks for seminar and internship report after evaluation. He/she will also be the internal examiner for Viva – Voce conducted during SEE.

11) The external guide from the industry shall be an examiner for the viva voce on Internship. Viva-Voce on internship shall be conducted at the college and the date of Viva-Voce shall be fixed in consultation with the external Guide. The Examiners shall jointly award the Viva - Voce marks.

12) In case the external Guide expresses his inability to conduct viva voce, the Chief Superintendent of the institution shall appoint a senior faculty of the Department to conduct viva-voce along with the internal guide. The same shall be informed in writing to the concerned Chairperson, Board of Examiners (BOE).

13) The students are permitted to carry out the internship anywhere in India or abroad. The University will not provide any kind of financial assistance to any student for carrying out the Internship.

Course outcomes: The students should be able to:

1. Adapt easily to the industry environment
2. Take part in team work
3. Make use of modern tools
4. Decide upon project planning and financing.
5. Adapt ethical values.
6. Motivate for lifelong learning

PROJECT WORK PHASE II
[As per Choice Based Credit System (CBCS) scheme]
(Effective from the academic year 2017 -2018)
SEMESTER – VIII

Subject Code	17CSP85	IA Marks	100
Number of Lecture Hours/Week	06	Exam Marks	100
Total Number of Lecture Hours	--	Exam Hours	03

CREDITS – 06

Description (If any):

- Project: Carried out at the Institution or at an Industry.
- Project work shall preferably be batch wise, the strength of each batch shall not exceed maximum of four students
- Viva-voce examination in project work shall be conducted batch-wise.
- For Project Phase –I and Project seminar and Project Phase –II, the CIE shall be 100 respectively.
- The CIE marks in the case of projects in the final year shall be based on the evaluation at the end of VIII semester by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the project guide.
- Minimum requirement of CIE marks for Project work shall be 50% of the maximum marks.
- Students failing to secure a minimum of 50% of the CIE marks in Project work shall not be eligible for the Project examination conducted by the University and they shall be considered as failed in that/those Course/s. However, they can appear for University examinations conducted in other Courses of the same semester and backlog Courses if any. Students after satisfying the prescribed minimum CIE marks in the Course/s when offered during subsequent semester shall appear for SEE.
- Improvement of CIE marks shall not be allowed in Project where the student has already secured the minimum required marks
- For a pass in a Project/Viva-voce examination, a student shall secure a minimum of 40% of the maximum marks prescribed for the University Examination. The Minimum Passing Grade in a Course is ‘E’.
- The student who desires to reject the results of a semester shall reject performance in all the Courses of the semester, irrespective of whether the student has passed or failed in any Course. However, the rejection of performance of VIII semester project shall not be permitted

Course outcomes: The students should be able to:

1. Identify a issue and derive problem related to society, environment, economics, energy and technology
2. Formulate and Analyze the problem and determine the scope of the solution chosen
3. Determine , dissect, and estimate the parameters, required in the solution.
4. Evaluate the solution by considering the standard data / Objective function and by using appropriate performance metrics.
5. Compile the report and take part in present / publishing the finding in a reputed conference / publications
6. Attempt to obtain ownership of the solution / product developed.

SEMINAR [As per Choice Based Credit System (CBCS) scheme] (Effective from the academic year 2017 -2018) SEMESTER – VIII			
Subject Code	17CSS86	IA Marks	100
Number of Lecture Hours/Week	04	Exam Marks	--
Total Number of Lecture Hours	--	Exam Hours	--
CREDITS – 01			

Description:

- Seminar: Deliverable at the Institution under the supervision of a Faculty.
- Seminar is one of the head of passing. i) Each candidate shall deliver seminar as per the Scheme of Teaching and Examination on the topics chosen from the relevant fields for about 30 minutes. ii) The Head of the Department shall make arrangements for conducting seminars through concerned faculty members of the Department. The committee constituted for the purpose by the Head of the Department shall award the CIE marks for the seminar. The committee shall consist of three faculty from the Department and the senior most acting as the Chairman/Chairperson. [To be read along with 17 OB 8.6]
- For Technical seminar, the CIE marks shall be 100.
- The CIE marks in the case of projects and seminars in the final year shall be based on the evaluation at the end of VIII semester by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the project / seminar guide.
- For seminar, the minimum requirement of CIE marks shall be 40% of the maximum marks.
- If any student fails to secure a minimum of 40% of the maximum CIE marks in seminar/ fails to deliver the seminar, he/she shall be considered as failed in that Course and shall not be eligible for the award of degree. However, the student shall become eligible for the award of degree after satisfying the requirements prescribed for seminar during the subsequent semester/s.
- Improvement of CIE marks shall not be allowed in Seminar where the student has already secured the minimum required marks.
- Seminar topics must be from recent advancements in the domain.
- Each candidate must submit three copies of the report to the department. One for the candidate, one for the guide and one for the department.

Course outcomes: The students should be able to:

- Survey the changes in the technologies relevant to the topic selected
- Discuss the technology and interpret the impact on the society, environment and domain.
- Compile report of the study and present to the audience, following the ethics.

B.E E&C EIGTH SEMESTER SYLLABUS

WIRELESS CELLULAR and LTE 4G BROADBAND

B.E., VIII Semester, Electronics &Communication Engineering/ Telecommunication Engineering

[As per Choice Based Credit System (CBCS) Scheme]

Course Code	**17EC81**	**CIE Marks**	**40**
Number of Lecture	**04**	**SEE Marks**	**60**
Total Number	**50 (10 Hours / Module)**	**Exam Hours**	**03**

CREDITS – 04

Course Objectives: This course will enable students to:

- Understand the basics of LTE standardization phases and specifications.
- Explain the system architecture of LTE and E-UTRAN, the layer of LTE, based on the use of OFDMA and SC-FDMA principles.
- Analyze the role of LTE radio interface protocols to set up, reconfigure and release the Radio Bearer, for transferring the EPS bearer.
- Analyze the main factors affecting LTE performance including mobile speed and transmission bandwidth.

Module – 1

Key Enablers for LTE features: OFDM, Single carrier FDMA, Single carrier FDE, Channel Dependent Multiuser Resource Scheduling, Multi antenna Techniques, IP based Flat network Architecture, LTE Network Architecture. (Sec 1.4- 1.5 of Text).

Wireless Fundamentals: Cellular concept, Broadband wireless channel (BWC), Fading in BWC, Modeling BWC – Empirical and Statistical models, Mitigation of Narrow band and Broadband Fading (Sec 2.2 – 2.7of Text). **L1, L2**

Module – 2

Multicarrier Modulation: OFDM basics, OFDM in LTE, Timing and Frequency Synchronization, PAR, SC-FDE (Sec 3.2 – 3.6 of Text).

OFDMA and SC-FDMA:OFDM with FDMA,TDMA,CDMA, OFDMA, SC-FDMA, OFDMA and SC-FDMA in LTE (Sec 4.1 – 4.3, 4.5 of Text).

Multiple Antenna Transmission and Reception: Spatial Diversity overview, Receive Diversity, Transmit Diversity, Interference cancellation and signal enhancement, Spatial Multiplexing, Choice between Diversity, Interference suppression and Spatial Multiplexing (Sec 5.1 – 5.6 of Text). **L1, L2**

Module – 3

Overview and Channel Structure of LTE: Introduction to LTE, Channel Structure of LTE, Downlink OFDMA Radio Resource, Uplink SC-FDMA Radio Resource(Sec 6.1 – 6.4 of Text).

Downlink Transport Channel Processing: Overview, Downlink shared

channels, Downlink Control Channels, Broadcast channels, Multicast channels, Downlink physical channels, H-ARQ on Downlink(Sec 7.1 – 7.7 of Text). **L1, L2**

Module – 4

Uplink Channel Transport Processing: Overview, Uplink shared channels, Uplink Control Information, Uplink Reference signals, Random Access Channels, H-ARQ on uplink (Sec 8.1 – 8.6 of Text).

Physical Layer Procedures: Hybrid – ARQ procedures, Channel Quality Indicator CQI feedback, Precoder for closed loop MIMO Operations, Uplink channel sounding, Buffer status Reporting in uplink, Scheduling and Resource Allocation, Cell Search, Random Access Procedures, Power Control in uplink(Sec 9.1- 9.6, 9.8, 9.9, 9.10 Text). **L1, L2**

Module – 5

Radio Resource Management and Mobility Management:
PDCP overview, MAC/RLC overview, RRC overview, Mobility Management, Inter-cell Interference Coordination (Sec 10.1 – 10.5 of Text). **L1, L2**

Course Outcomes: At the end of the course, students will be able to:

- Understand the system architecture and the functional standard specified in LTE 4G.
- Analyze the role of LTE radio interface protocols and EPS Data convergence protocols to set up, reconfigure and release data and voice from users.
- Demonstrate the UTRAN and EPS handling processes from set up to release including mobility management for a variety of data call scenarios.
- Test and Evaluate the Performance of resource management and packet data processing and transport algorithms.

Text Book:

Arunabha Ghosh, Jan Zhang, Jefferey Andrews, Riaz Mohammed, 'Fundamentals of LTE', Prentice Hall, Communications Engg. and Emerging Technologies.

Reference Books:

1. LTE for UMTS Evolution to LTE-Advanced' Harri Holma and Antti Toskala, Second Edition - 2011, John Wiley & Sons, Ltd. Print ISBN: 9780470660003.
2. 'EVOLVED PACKET SYSTEM (EPS) ; THE LTE AND SAE EVOLUTION OF 3G UMTS' by Pierre Lescuyer and Thierry Lucidarme, 2008, John Wiley & Sons, Ltd. Print ISBN:978-0-470-05976-0.
3. 'LTE – The UMTS Long Term Evolution ; From Theory to Practice' by Stefania Sesia, Issam Toufik, and Matthew Baker, 2009 John Wiley & Sons Ltd, ISBN 978-0-470-69716-0.

FIBER OPTICS and NETWORKS

B.E., VIII Semester, Electronics &Communication Engineering

[As per Choice Based Credit System (CBCS) Scheme]

Course Code	**17EC82**	**CIE Marks**	**40**
Number of Lecture Hours/Week	**4**	**SEE Marks**	**60**
Total Number of Lecture Hours	**50(10 Hours / Module)**	**Exam Hours**	**03**

CREDITS – 04

Course Objectives: This course will enable students to:

- Learn the basic principle of optical fiber communication with different modes of light propagation.
- Understand the transmission characteristics and losses in optical fiber.
- Study of optical components and its applications in optical communication networks.
- Learn the network standards in optical fiber and understand the network architectures along with its functionalities.

Module -1

Optical fiber Communications: Historical development, The general system, Advantages of optical fiber communication, Optical fiber waveguides: Ray theory transmission, Modes in planar guide, Phase and group velocity, Cylindrical fiber: Modes, Step index fibers, Graded index fibers, Single mode fibers, Cutoff wavelength, Mode field diameter, effective refractive index. Fiber Materials, Photonic crystal fibers. (Text 2) **L1, L2**

Module -2

Transmission characteristics of optical fiber: Attenuation, Material absorption losses, Linear scattering losses, Nonlinear scattering losses, Fiber bend loss, Dispersion, Chromatic dispersion, Intermodal dispersion: Multimode step index fiber.

Optical Fiber Connectors: Fiber alignment and joint loss, Fiber splices, Fiber connectors, Fiber couplers. (Text 2) **L1, L2**

Module -3

Optical sources: Energy Bands, Direct and Indirect Bandgaps, Light Emitting diodes: LED Structures, Light Source Materials, Quantum Efficiency and LED Power, Modulation. Laser Diodes: Modes and Threshold conditions, Rate equation, External Quantum Efficiency, Resonant frequencies, Laser Diode structures and Radiation Patterns: Single mode lasers.

Photodetectors: Physical principles of Photodiodes, Photodetector noise, Detector response time.

Optical Receiver: Optical Receiver Operation: Error sources, Front End Amplifiers, Receiver sensitivity, Quantum Limit. (Text 1) **L1, L2**

Module -4

WDM Concepts and Components: Overview of WDM: Operational Principles of WDM, WDM standards, Mach-Zehnder Interferometer Multiplexers, Isolators and Circulators, Fiber grating filters, Dielectric Thin-Film Filters, Diffraction Gratings, Active Optical Components, Tunable light sources,

Optical amplifiers: Basic application and Types, Semiconductor optical amplifiers, Erbium Doped Fiber Amplifiers, Raman Amplifiers, Wideband Optical Amplifiers. (Text 1) **L1, L2**

Module -5

Optical Networks: Optical network evolution and concepts: Optical networking terminology, Optical network node and switching elements, Wavelength division multiplexed networks, Public telecommunication network overview. Optical network transmission modes, layers and protocols: Synchronous networks, Asynchronous transfer mode, OSI reference model, Optical transport network, Internet protocol, Wavelength routing networks: Routing and wavelength assignment, Optical switching networks: Optical circuit switched networks, packet switched networks, Multiprotocol Label Switching, Optical burst switching networks, Optical network deployment: Long-haul networks, Metropoliton area networks, Access networks, Local area networks. (Text 2) **L1, L2**

Course Outcomes: At the end of the course, students will be able to:

1. Classification and working of optical fiber with different modes of signal propagation.
2. Describe the transmission characteristics and losses in optical fiber communication.
3. Describe the construction and working principle of optical connectors, multiplexers and amplifiers.
4. Describe the constructional features and the characteristics of optical sources and detectors.
5. Illustrate the networking aspects of optical fiber and describe various standards associated with it.

Text Books:

1. Gerd Keiser , Optical Fiber Communication, 5th Edition, McGraw Hill Education(India) Private Limited, 2015. ISBN:1-25-900687-5.
2. John M Senior, Optical Fiber Communications, Principles and Practice, 3rd Edition, Pearson Education, 2010, ISBN:978-81-317-3266-3

Reference Book:

Joseph C Palais, Fiber Optic Communication , Pearson Education, 2005, ISBN:0130085103

MICRO ELECTRO MECHANICAL SYSTEMS

B.E., VIII Semester, Electronics & Communication Engineering/ Telecommunication Engineering

[As per Choice Based Credit System (CBCS) Scheme]

Course Code	**17EC831**	**CIE Marks**	**40**
Number of Lecture Hours/Week	**03**	**SEE Marks**	**60**
Total Number of Lecture Hours	**40 (8 Hours per Module)**	**Exam Hours**	**03**

CREDITS – 03

Course Objectives: This course will enable students to:

- Understand overview of microsystems, their fabrication and application areas.
- Working principles of several MEMS devices.
- Develop mathematical and analytical models of MEMS devices.
- Know methods to fabricate MEMS devices.
- Various application areas where MEMS devices can be used.

Module 1

Overview of MEMS and Microsystems: MEMS and Microsystem, Typical MEMS and Microsystems Products, Evolution of Microfabrication, Microsystems and Microelectronics, Multidisciplinary Nature of Microsystems, Miniaturization. Applications and Markets. **L1, L2**

Module 2

Working Principles of Microsystems: Introduction, Microsensors, Microactuation, MEMS with Microactuators, Microaccelerometers, Microfluidics.

Engineering Science for Microsystems Design and Fabrication: Introduction, Molecular Theory of Matter and Inter-molecular Forces, Plasma Physics, Electrochemistry. **L1, L2**

Module 3

Engineering Mechanics for Microsystems Design: Introduction, Static Bending of Thin Plates, Mechanical Vibration, Thermomechanics, Fracture Mechanics, Thin Film Mechanics, Overview on Finite Element Stress Analysis. **L1, L2, L3**

Module 4

Scaling Laws in Miniaturization: Introduction, Scaling in Geometry, Scaling in Rigid-Body Dynamics, Scaling in Electrostatic Forces, Scaling in Fluid Mechanics, Scaling in Heat Transfer. **L1, L2, L3**

Module 5

Overview of Micromanufacturing: Introduction, Bulk Micromanufacturing, Surface Micromachining, The LIGA Process, Summary on Micromanufacturing. **L1, L2**

Course Outcomes: After studying this course, students will be able to:

- Appreciate the technologies related to Micro Electro Mechanical Systems.
- Understand design and fabrication processes involved with MEMS devices.
- Analyse the MEMS devices and develop suitable mathematical models
- Know various application areas for MEMS device

Text Book:

Tai-Ran Hsu, MEMS and Micro systems: Design, Manufacture and Nanoscale Engineering, 2nd Ed, Wiley.

Reference Books:

1. Hans H. Gatzen, Volker Saile, JurgLeuthold, Micro and Nano Fabrication: Tools and Processes, Springer, 2015.
2. Dilip Kumar Bhattacharya, Brajesh Kumar Kaushik, Microelectromechanical Systems (MEMS), Cenage Learning.

SPEECH PROCESSING

B.E., VIII Semester, Electronics & Communication Engineering/ Telecommunication Engineering

[As per Choice Based Credit System (CBCS) Scheme]

Course Code	**17EC832**	**CIE Marks**	**40**
Number of Lecture Hours/Week	**03**	**SEE Marks**	**60**
Total Number of Lecture Hours	**40 (8 Hours / Module)**	**Exam Hours**	**03**

CREDITS – 03

Course Objectives: This course enables students to:

- Introduce the models for speech production
- Develop time and frequency domain techniques for estimating speech parameters
- Introduce a predictive technique for speech compression
- Provide fundamental knowledge required to understand and analyse speech recognition, synthesis and speaker identification systems.

Module-1

Fundamentals of Human Speech Production: The Process of Speech Production, Short-Time Fourier Representation of Speech, The Acoustic Theory of Speech Production, Lossless Tube Models of the Vocal Tract, Digital Models for Sampled Speech Signals. **L1, L2**

Module-2

Time-Domain Methods for Speech Processing: Introduction to Short-Time Analysis of Speech, Short-Time Energy and Short-Time Magnitude, Short-Time Zero-Crossing Rate, The Short-Time Autocorrelation Function, The Modified Short-Time Autocorrelation Function, The Short-Time Average Magnitude Difference Function. **L1, L2**

Module-3

Frequency Domain Representations: Discrete-Time Fourier Analysis, Short-Time Fourier Analysis, Spectrographic Displays, Overlap Addition(OLA),Method of Synthesis, Filter Bank Summation(FBS) Method of Synthesis, Time-Decimated Filter Banks, Two-Channel Filter Banks, Implementation of the FBS Method Using the FFT, OLA Revisited, Modifications of the STFT. **L1, L2**

Module-4

The Cepstrum and Homomorphic Speech Processing: Homomorphic Systems for Convolution, Homomorphic Analysis of the Speech Model, Computing the Short-Time Cepstrum and Complex Cepstrum of Speech, Homomorphic Filtering of Natural Speech, Cepstrum Analysis of All-Pole Models, Cepstrum Distance Measures. **L1, L2, L3**

Module-5

Linear Predictive Analysis of Speech Signals: Basic Principles of Linear Predictive Analysis, Computation of the Gain for the Model, Frequency Domain Interpretations of Linear Predictive Analysis, Solution of the LPC Equations, The Prediction Error Signal, Some Properties of the LPC Polynomial A(z), Relation of Linear Predictive Analysis to

Lossless Tube Models, Alternative Representations of the LP Parameters. **L1, L2, L3**

Course outcomes: Upon completion of the course, students will be able to:

- Model speech production system and describe the fundamentals of speech.
- Extract and compare different speech parameters.
- Choose an appropriate speech model for a given application.
- Analyse speech recognition, synthesis and speaker identification systems

Text Book:

Theory and Applications of Digital Speech Processing-Rabiner and Schafer, Pearson Education 2011

Reference Books:

1. **Fundamentals of Speech Recognition-** Lawrence Rabiner and Biing-Hwang Juang, Pearson Education, 2003.

2. **Speech and Language Processing–An Introduction to Natural Language Processing, Computational Linguistics, and Speech Recognition-** Daniel Jurafsky and James H Martin, Pearson Prentice Hall 2009.

RADAR ENGINEERING

B.E., VIII Semester, Electronics & Communication Engineering/ Telecommunication Engineering

[As per Choice Based Credit System (CBCS) Scheme]

Course Code	**17EC833**	**CIE Marks**	**40**
Number of Lecture Hours/Week	**03**	**SEE Marks**	**60**
Total Number of Lecture Hours	**40 (8 Hours / Module)**	**Exam Hours**	**03**

CREDITS – 03

Course objectives: This course will enable students to:

- Understand the Radar fundamentals and analyze the radar signals.
- Understand various technologies involved in the design of radar transmitters and receivers.
- Learn various radars like MTI, Doppler and tracking radars and their comparison

Module-1

Basics of Radar: Introduction, Maximum Unambiguous Range, Radar Waveforms, Definitions with respect to pulse waveform - PRF, PRI, Duty Cycle, Peak Transmitter Power, Average transmitter Power.

Simple form of the Radar Equation, Radar Block Diagram and Operation, Radar Frequencies, Applications of Radar, The Origins of Radar, Illustrative Problems. (Chapter 1 of Text) **L1, L2, L3**

Module-2

The Radar Equation: Prediction of Range Performance, Detection of signal in Noise, Minimum Detectable Signal, Receiver Noise, SNR, Modified Radar Range Equation, Envelope Detector — False Alarm Time and Probability, Probability of Detection,

Radar Cross Section of Targets: simple targets – sphere, cone-sphere, Transmitter Power, PRF and Range Ambiguities, System Losses (qualitative treatment), Illustrative Problems. (Chapter 2 of Text, Except 2.4, 2.6, 2.8 & 2.11) **L1, L2, L3**

Module-3

MTI and Pulse Doppler Radar: Introduction, Principle, Doppler Frequency Shift, Simple CW Radar, Sweep to Sweep subtraction and Delay Line Canceler, MTI Radar with – Power Amplifier Transmitter, Delay Line Cancelers — Frequency Response of Single Delay- Line Canceler, Blind Speeds, Clutter Attenuation, MTI Improvement Factor, N- Pulse Delay-Line Canceler,

Digital MTI Processing – Blind phases, I and Q Channels, Digital MTI Doppler signal processor, Moving Target Detector- Original MTD. (Chapter 3: 3.1, 3.2, 3.5, 3.6 of Text) **L1, L2, L3**

Module-4

Tracking Radar:

Tracking with Radar- Types of Tracking Radar Systems, Monopulse Tracking- Amplitude Comparison Monopulse (one-and two-coordinates), Phase Comparison Monopulse.

Sequential Lobing, Conical Scan Tracking, Block Diagram of Conical Scan Tracking Radar, Tracking in Range, Comparison of Trackers. (Chapter 4: 4.1, 4.2, 4.3 of Text) **L1, L2, L3**

Module-5

The Radar Antenna: Functions of The Radar Antenna, Antenna Parameters, Reflector Antennas and Electronically Steered Phased array Antennas**.** (Chapter 9: 9.1, 9.2 9.4,

9.5 of Text)
Radar Receiver: The Radar Receiver, Receiver Noise Figure, Super Heterodyne Receiver, Duplexers and Receivers Protectors, Radar Displays. (Chapter 11 of Text)
L1, L2, L3

Course outcomes: At the end of the course, students will be able to:

- Understand the radar fundamentals and radar signals.
- Explain the working principle of pulse Doppler radars, their applications and limitations
- Describe the working of various radar transmitters and receivers.
- Analyze the range parameters of pulse radar system which affect the system performance

Text Book:

Introduction to Radar Systems- Merrill I Skolink, 3e, TMH, 2001.

Reference Books:

1. Radar Principles, Technology, Applications — Byron Edde, Pearson Education, 2004.
2. Radar Principles – Peebles. Jr, P.Z. Wiley. New York, 1998.
3. Principles of Modem Radar: Basic Principles – Mark A. Rkhards, James A. Scheer, William A. HoIm. Yesdee, 2013

MACHINE LEARNING

B.E., VIII Semester, Electronics & Communication Engineering/ Telecommunication Engineering

[As per Choice Based Credit System (CBCS) Scheme]

Course Code	**17EC834**	**CIE Marks**	**40**
Number of Lecture Hours/Week	**03**	**SEE Marks**	**60**
Total Number of Lecture Hours	**40 (8 Hours / Module)**	**Exam Hours**	**03**

CREDITS – 03

Course Objectives: This course will enable students to:

- Introduce some concepts and techniques that are core to Machine Learning.
- Understand learning and decision trees.
- Acquire knowledge of neural networks, Bayesian techniques and instant based learning.
- Understand analytical learning and reinforced learning.

Module-1

Learning: Designing Learning systems, Perspectives and Issues, Concept Learning, Version Spaces and Candidate Elimination Algorithm, Inductive bias. **L1, L2**

Module-2

Decision Tree and ANN: Decision Tree Representation, Hypothesis Space Search, Inductive bias in decision tree, issues in Decision tree. Neural Network Representation, Perceptrons, Multilayer Networks and Back Propagation Algorithms. **L1, L2**

Module-3

Bayesian and Computational Learning: Bayes Theorem, Bayes Theorem Concept Learning, Maximum Likelihood, Minimum Description Length Principle, Bayes Optimal Classifier, Gibbs Algorithm, Naïve Bayes Classifier. **L1, L2**

Module-4

Instant Based Learning and Learning set of rules: K- Nearest Neighbour Learning, Locally Weighted Regression, Radial Basis Functions, Case-Based Reasoning.
Sequential Covering Algorithms, Learning Rule Sets, Learning First Order Rules, Learning Sets of First Order Rules. **L1, L2**

Module-5

Analytical Learning and Reinforced Learning: Perfect Domain Theories, Explanation Based Learning, Inductive-Analytical Approaches, FOCL Algorithm, Reinforcement Learning. **L1, L2**

Course outcomes: At the end of the course, students should be able to:

- Understand the core concepts of Machine learning.
- Appreciate the underlying mathematical relationships within and across Machine Learning algorithms.
- Explain paradigms of supervised and un-supervised learning.
- Recognize a real world problem and apply the learned techniques of Machine Learning to solve the problem.

Text Book:

Machine Learning-Tom M. Mitchell, McGraw-Hill Education, (Indian Edition), 2013.

Reference Books:

1. **Introduction to Machine Learning-** Ethem Alpaydin, 2nd Ed., PHI Learning Pvt. Ltd., 2013.
2. **The Elements of Statistical Learning-**T. Hastie, R. Tibshirani, J. H. Friedman, Springer; 1st edition, 2001.

NETWORK AND CYBER SECURITY

B.E., VIII Semester, Electronics & Communication Engineering

[As per Choice Based credit System (CBCS) Scheme]

Course Code	**17EC835**	**CIE Marks**	**40**
Number of Lecture Hours/Week	**03**	**SEE Marks**	**60**
Total Number of Lecture Hours	**40 (8 Hours per Module)**	**Exam Hours**	**03**

CREDITS – 03

Course Objectives: This course will enable students to:

- Know about security concerns in Email and Internet Protocol.
- Understand cyber security concepts.
- List the problems that can arise in cyber security.
- Discuss the various cyber security frame work.

Module-1

Transport Level Security: Web Security Considerations, Secure Sockets Layer, Transport Layer Security, HTTPS, Secure Shell (SSH) (Text 1: Chapter 15). **L1, L2**

Module-2

E-mail Security: Pretty Good Privacy, S/MIME, Domain keys identified mail (Text 1: Chapter 17). **L1, L2**

Module-3

IP Security: IP Security Overview, IP Security Policy, Encapsulation Security Payload (ESP), Combining security Associations Internet Key Exchange. Cryptographic Suites(Text 1: Chapter 18.) **L1, L2**

Module-4

Cyber network security concepts: Security Architecture, antipattern: signature based malware detection versus polymorphic threads, document driven certification and accreditation, policy driven security certifications. Refactored solution: reputational, behavioural and entropy based malware detection.

The problems: cyber antipatterns concept, forces in cyber antipatterns, cyber anti pattern templates, cyber security antipattern catalog (Text-2: Chapter1 & 2). **L1, L2, L3**

Module-5

Cyber network security concepts contd. :

Enterprise security using Zachman framework

Zachman framework for enterprise architecture, primitive models versus composite models, architectural problem solving patterns, enterprise workshop, matrix mining, mini patterns for problem solving meetings.

Case study: cyber security hands on – managing administrations and root accounts, installing hardware, reimaging OS, installing system protection/ antimalware, configuring firewalls (Text-2: Chapter 3 & 4). **L1, L2, L3**

Course Outcomes: After studying this course, students will be able to:

- Explain network security protocols
- Understand the basic concepts of cyber security
- Discuss the cyber security problems
- Explain Enterprise Security Framework
- Apply concept of cyber security framework in computer system administration

Text Books:

1. William Stallings, "Cryptography and Network Security Principles and Practice", Pearson Education Inc., 6th Edition, 2014, ISBN: 978-93-325-1877-3.

2. Thomas J. Mowbray, "Cyber Security – Managing Systems, Conducting Testing, and Investigating Intrusions", Wiley.

Reference Books:

1. Cryptography and Network Security, Behrouz A. Forouzan, TMH, 2007.
2. Cryptography and Network Security, Atul Kahate, TMH, 2003.

VIII SEMESTER DETAILED SYLLABUS

POWER SYSTEM OPERATION AND CONTROL(Core Course)
B.E., VIII Semester, Electrical and Electronics Engineering [As per Choice Based Credit System (CBCS) scheme]

Course Code	17EE81	CIE Marks	40
Number of Lecture Hours/Week	04	SEE Marks	60
Total Number of Lecture Hours	50	Exam Hours	03

Credits - 04

Course objectives:

- To describe various levels of controls in power systems and the vulnerability of the system.
- To explain components, architecture and configuration of SCADA.
- To define unit commitment and explain various constraints in unit commitment and the solution methods
- To explain issues of hydrothermal scheduling and solutions to hydro thermal problems
- To explain basic generator control loops, functions of Automatic generation control, speed governors and mathematical models of Automatic Load Frequency Control
- To explain automatic generation control, voltage and reactive power control in an interconnected power system.
- To explain reliability and contingency analysis, state estimation and related dissues. ■

Module-1	**Teaching Hours**
Introduction: Operating States of Power System, Objectives of Control, Key Concepts of Reliable Operation, Preventive and Emergency Controls, Energy Management Centres. **Supervisory Control and Data acquisition (SCADA):** Introduction to SCADA and its Components, Standard SCADA Configurations, Users of Power Systems SCADA, Remote Terminal Unit for Power System SCADA, Common Communication Channels for SCADA in Power Systems, Challenges for Implementation of SCADA. **Unit Commitment:** Introduction, SimpleEnumeration Constraints, Priority List Method, DynamicProgramming Method for Unit Commitment.■	**10**
Revised Bloom's Taxonomy Level: L_1 – Remembering, L_2 – Understanding, L_4 – Analysing.	
Module-2	
Hydro-thermal Scheduling: Introduction, Scheduling Hydro Systems, Discrete Time Interval Method, Short Term Hydro Thermal Scheduling Using $\gamma - \lambda$ Iterations, Short Term Hydro Thermal Scheduling Using Penalty Factors. **Automatic Generation Control (AGC):** Introductions, Basic Generator Control Loops, Commonly used Terms in AGC, Functions of AGC, Speed Governors.■	**10**
Revised Bloom's Taxonomy Level: L_2 – Understanding, L_3 – Applying, L_4 – Analysing.	
Module-3	
Automatic Generation Control (continued): Mathematical Model of Automatic Load Frequency Control, AGC Controller, Proportional Integral Controller. **Automatic Generation Control in interconnected Power system:** Introductions, Tie - Line Control with Primary Speed Control, Frequency Bias Tie - Line Control, State-Space Models.■	**10**
Revised Bloom's Taxonomy Level: L_3 – Applying.	
Module-4	
Automatic Generation Control in interconnected Power system (continued): State-Space Model for Two - Area System, Tie-Line Oscillations, Related Issues in Implementation of AGC. **Voltage and Reactive Power Control:** Introduction, Production and Absorption of Reactive Power, Methods of Voltage Control, Dependence of Voltage on Reactive Power , Sensitivity of Voltage to Changes in P And Q, Cost Saving, Methods of Voltage Control by Reactive Power Injection, Voltage Control Using Transformers, Voltage Stability. ■	**10**
Revised Bloom's Taxonomy Level: L_3 – Applying.	

B.E ELECTRICAL AND ELECTRONICS ENGINEERING(EEE)
CHOICE BASED CREDIT SYSTEM (CBCS)
SEMESTER - VIII

17EE81POWER SYSTEM OPERATION AND CONTROL(Core Course) (continued)

Module-5	**Teaching Hours**
Power System Reliability and Security: Introduction, Security Levels of System, Reliability Cost, Adequacy Indices, Functions of System Security, Contingency Analysis, Linear Sensitivity Factors, Contingency Selection and Ranking. **State estimation of Power Systems:** Introduction, Linear Least Square Estimation, DC State Estimator, Other Issues in State Estimation.■	**10**
Revised Bloom's Taxonomy Level L_2 – Understanding, L_3 – Applying, L_4 – Analysing.	

Course outcomes:

At the end of the course the student will be able to:

- Describe various levels of controls in power systems, the vulnerability of the system,components, architecture and configuration of SCADA.
- Solve unit commitment problems
- Explain issues of hydrothermal scheduling and solutions to hydro thermal problems
- Explain basic generator control loops, functions of Automatic generation control, speed governors
- Develop and analyze mathematical models of Automatic Load Frequency Control
- Explain automatic generation control, voltage and reactive power control in an interconnected power system.
- Explain reliability, security, contingency analysis, state estimation and related issues of power systems. ■

Graduate Attributes (As per NBA)

Engineering Knowledge, Problem Analysis, Conduct investigations of complex problems, Modern Tool Usage, Communication, Life-long Learning.

Question paper pattern:

- The question paper will have ten full questions carrying equal marks. Each full question consisting of 16 marks.
- There will be two full questions (with a maximum of four sub questions) from each module.
- Each full question will have sub question covering all the topics under a module.

Textbook

1	Power System Operation and Control	K. Uma Rao	Wiley	1st Edition, 2012

Reference Books

1	Power Generation Operation and Control	Allen J Wood etal	Wiley	2nd Edition,2003
2	Power System Stability and Control	Kundur	McGraw Hill	8th Reprint, 2009

INDUSTRIAL DRIVES AND APPLICATIONS(Core Course)
B.E., VIII Semester, Electrical and Electronics Engineering [As per Choice Based Credit System (CBCS) scheme]

Course Code	17EE82	CIE Marks	40
Number of Lecture Hours/Week	04	SEE Marks	60
Total Number of Lecture Hours	50	Exam Hours	03

Credits - 04

Course objectives:

- To define electric drive, its parts, advantages and explain choice of electric drive.
- To explain dynamics and modes of operation of electric drives.
- To explain selection of motor power ratings and control of dc motor using rectifiers.
- To analyze the performance of induction motor drives under different conditions.
- To explain the control of induction motor, synchronous motor and stepper motor drives.
- To discuss typical applications electrical drives in theindustry. ■

Module-1	**Teaching Hours**
Electrical Drives: Electrical Drives, Advantages of Electrical Drives. Parts of Electrical Drives, Choice of Electrical Drives, Status of dc and ac Drives. **Dynamics of Electrical Drives:** Fundamental Torque Equations, Speed TorqueConventions and Multiquadrant Operation. Equivalent Values of DriveParameters, Components of Load Torques, Nature and Classification of LoadTorques, Calculation of Time and Energy Loss in Transient Operations, SteadyState Stability, Load Equalization. **Control Electrical Drives:**Modes of Operation, Speed Control and Drive Classifications, Closed loop Control of Drives. ■	**10**
Revised Bloom's Taxonomy Level: L_1 – Remembering, L_2 – Understanding, L_3 – Applying, L_4 – Analysing.	
Module-2	
Selection of Motor Power Ratings: Thermal Model of Motor for Heating and Cooling, Classes of Motor Duty, Determination of Motor Rating. **Direct Current Motor Drives:**Controlled Rectifier Fed dc Drives, Single Phase Fully Controlled Rectifier Control of dc Separately Excited Motor,SinglePhase Half Controlled Rectifier Control of dc Separately Excited Motor, Three Phase Fully Controlled Rectifier Control of dc Separately Excited Motor,Three Phase Half Controlled Rectifier Control of dc Separately Excited Motor, Multiquadrant Operation of dc Separately Excited Motor Fed Form Fully Controlled Rectifier,Rectifier Control of dc Series Motor, Supply Harmonics, Power Factor and Ripple in Motor Current,Chopper Control of Separately Excited dcMotor, Chopper Control of Series Motor. ■	**10**
Revised Bloom's Taxonomy Level: L_1 – Remembering, L_2 – Understanding, L_3 – Applying, L_4 – Analysing.	
Module-3	
Induction Motor Drives: Analysis and Performance ofThree Phase Induction Motors, Operation with Unbalanced Source Voltage and Single Phasing,Operation with Unbalanced Rotor Impedances,Analysis of Induction Motor Fed From Non-Sinusoidal Voltage Supply,Starting, Braking, Transient Analysis.Speed Control Techniques-Stator Voltage Control, Variable Voltage Frequency Control from Voltage Sources. ■	**10**
Revised Bloom's Taxonomy Level: L_2 – Understanding, L_3 – Applying, L_4 – Analysing, L_5 – Evaluating.	
Module-4	
Induction Motor Drives (continued): Voltage Source Inverter (VSI) Control, Cycloconverter Control, Closed Loop Speed Control and Converter Rating for VSI and Cycloconverter Induction Motor Drives, Variable Frequency Control from a Current Source, Current Source (CSI) Control,current regulated voltage source inverter control, speed control of single phase induction motors. **Synchronous Motor Drives:**Operation from fixed frequency supply-starting, synchronous motor	**10**
Revised Bloom's Taxonomy Level: L_1 – Remembering, L_2 – Understanding, L_3 – Applying, L_4 – Analysing.	

B.E ELECTRICAL AND ELECTRONICS ENGINEERING(EEE)
CHOICE BASED CREDIT SYSTEM (CBCS)
SEMESTER -VIII

17EE82 INDUSTRIAL DRIVES AND APPLICATIONS(Core Course) (continued)

Module-5	**Teaching Hours**
Synchronous Motor Drives (continued): Self-controlled synchronous motor drive employing load commutated thruster inverter, Starting Large Synchronous Machines, Permanent Magnet ac (PMAC) Motor Drives, Sinusoidal PMAC Motor Drives, Brushless dc Motor Drives. **Stepper Motor Drives**: Variable Reluctance, Permanent Magnet, Important Features of Stepper Motors, Torque Versus Stepping rate Characteristics, Drive Circuits for Stepper Motor. **Industrial Drives:**Textile Mills, Steel Rolling Mills, Cranes and Hoists, MachineTools. ■	**10**
Revised Bloom's Taxonomy Level L_1 – Remembering, L_2 – Understanding, L_3 – Applying, L_4 – Analysing.	

Course outcomes:

At the end of the course the student will be able to:

- Explain the advantages and choice of electricdrive.
- Explain dynamics and different modes of operation of electric drives.
- Suggest a motor for a drive and control of dc motor using controlled rectifiers.
- Analyze the performance of induction motor drives under differentconditions.
- Control induction motor, synchronous motor and stepper motor drives.
- Suggest a suitable electrical drive for specific application in theindustry. ■

Graduate Attributes (As per NBA)

Engineering Knowledge, Problem Analysis, Design/ Development of Solutions, Modern Tool Usage.

Question paper pattern:

- The question paper will have ten full questions carrying equal marks. Each full question consisting of 16 marks.
- There will be two full questions (with a maximum of four sub questions) from each module.
- Each full question will have sub question covering all the topics under a module.

Textbook

1	Fundamentals of Electrical Drives	Gopal K. Dubey	Narosa Publishing House	2nd Edition, 2001
2	Electrical Drives: Concepts and Applications (Refer to chapter 07 for Industrial Drives under module 5.)	VedumSubrahmanyam	McGraw Hill	2nd Edition, 2011

Reference Books

1	Electric Drives	N.K De,P.K. Sen	PHI Learning	1st Edition, 2009

SMART GRID(Professional Elective)
B.E., VIII Semester, Electrical and Electronics Engineering [As per Choice Based Credit System (CBCS) scheme]

Course Code	17EE831	CIE Marks	40
Number of Lecture Hours/Week	03	SEE Marks	60
Total Number of Lecture Hours	40	Exam Hours	03

Credits - 03

Course objectives:

- To define smart grid and discuss the progress made by different stakeholders in the design and development of smart grid.
- To explain the measurement techniques using PMUs and smart meters.
- To discuss tools for the analysis of smart grid and design, operation and performance.
- To discuss incorporating performance tools such as voltage and angle stability and state estimation into smart grid.
- To discuss classical optimization techniques and computational methods for smart grid design, planning and operation.
- To discuss the development of predictive grid management and control technology for enhancing the smart grid performance.
- To discuss development of cleaner, more environmentally responsible technologies for the electric system.
- To discuss the fundamental tools and techniques essential to the design of the smart grid.
- To describe methods to promote smart grid awareness and enhancement.
- To discuss methods to make the existing transmission system smarter by investing in new technology.

Module-1	**Teaching Hours**
Smart Grid Architectural Designs: Introduction, Today's Grid versus the Smart Grid, Energy Independence and Security Act of 2007: Rationale for the Smart Grid, Computational Intelligence, Power System Enhancement, Communication and Standards, Environment and Economics, General View of the Smart Grid Market Drivers, Stakeholder Roles and Function, Working Definition of the Smart Grid Based on Performance Measures, Representative Architecture, Functions of Smart Grid Components. **Smart Grid Communications and Measurement Technology:** Communication and Measurement, Monitoring, PMU, Smart Meters, and Measurements Technologies, GIS and Google Mapping Tools, Multiagent Systems (MAS) Technology, Microgrid and Smart Grid Comparison. **Performance Analysis Tools for Smart Grid Design:** Introduction to Load Flow Studies, Challenges to Load Flow in Smart Grid and Weaknesses of the Present Load Flow Methods, Load Flow State of the Art: Classical, Extended Formulations, and Algorithms, Congestion Management Effect, Load Flow for Smart Grid Design, DSOPF Application to the Smart Grid, Static Security Assessment (SSA) and Contingencies, Contingencies and Their Classification, Contingency Studies for the Smart Grid.	**08**
Revised Bloom's Taxonomy Level: L_1 – Remembering, L_2 – Understanding, L_3 – Applying.	
Module-2	
Stability Analysis Tools for Smart Grid: Introduction to Stability, Strengths and Weaknesses of Existing Voltage Stability Analysis Tools, Voltage Stability Assessment, Voltage Stability Assessment Techniques, Voltage Stability Indexing, Analysis Techniques for Steady-State Voltage Stability Studies, Application and Implementation Plan of Voltage Stability, Optimizing Stability Constraint through Preventive Control of Voltage Stability, Angle Stability Assessment, State Estimation.	**08**
Revised Bloom's Taxonomy Level: L_1 – Remembering, L_2 – Understanding, L_3 – Applying, L_4 – Analysing.	
Module-3	
Computational Tools for Smart Grid Design: Introduction to Computational Tools, Decision Support Tools, Optimization Techniques, Classical Optimization Method, Heuristic Optimization, Evolutionary Computational Techniques, Adaptive Dynamic Programming Techniques, Pareto	**08**

B.E ELECTRICAL AND ELECTRONICS ENGINEERING(EEE)
CHOICE BASED CREDIT SYSTEM (CBCS)
SEMESTER –VIII

17EE831 SMART GRID(Professional Elective) (continued)

Module-3 (continued)		**Teaching Hours**
Methods, Hybridizing Optimization Techniques and Applications to the Smart Grid, Computational Challenges. **Pathway for Designing Smart Grid:** Introduction to Smart Grid Pathway Design, Barriers and Solutions to Smart Grid Development, Solution Pathways for Designing Smart Grid Using Advanced Optimization and Control Techniques for Selection Functions, General Level Automation, Bulk Power Systems Automation of the Smart Grid at Transmission Level, Distribution System Automation Requirement of the Power Grid, End User/Appliance Level of the Smart Grid, Applications for Adaptive Control and Optimization.		
Revised Bloom's Taxonomy Level	L_1 – Remembering, L_2 – Understanding, L_3 – Applying, L_4 – Analysing.	
Module-4		
Renewable Energy and Storage: Renewable Energy Resources, Sustainable Energy Options for the Smart Grid, Penetration and Variability Issues Associated with Sustainable Energy Technology, Demand Response Issues, Electric Vehicles and Plug-in Hybrids, PHEV Technology, Environmental Implications, Storage Technologies, Tax Credits. **Interoperability, Standards, and Cyber Security:** Introduction, Interoperability, Standards, Smart Grid Cyber Security, Cyber Security and Possible Operation for Improving Methodology for Other Users.		**08**
Revised Bloom's Taxonomy Level	L_1 – Remembering, L_2 – Understanding.	
Module-5		
Research, Education, and Training for the Smart Grid: Introduction, Research Areas for Smart Grid Development, Research Activities in the Smart Grid, Multidisciplinary Research Activities, Smart Grid Education, Training and Professional Development. **Case Studies and Test beds for the Smart Grid:** Introduction, Demonstration Projects, Advanced Metering, Microgrid with Renewable Energy, Power System Unit Commitment (UC) Problem,ADP for Optimal Network Reconfiguration in Distribution Automation, Case Study of RER Integration,Testbeds and Benchmark Systems, Challenges of Smart Transmission,Benefits of Smart Transmission.		**08**
Revised Bloom's Taxonomy Level	L_1 – Remembering, L_2 – Understanding.	

Course outcomes:

At the end of the course the student will be able to:

- Discuss the progress made by different stakeholders in the design and development of smartgrid.
- Explain measurement techniques using Phasor Measurement Units and smart meters
- Discuss tools for the analysis of smart grid and design, operation and performance
- Discuss classical optimization techniques and computational methods for smart grid design, planning and operation.
- Explain predictive grid management and control technology for enhancing the smart gridperformance
- Develop cleaner, more environmentally responsible technologies for the electric system.
- Discuss the computational techniques, communication, measurement, and monitoring technologytools essential to the design of the smart grid.
- Explain methods to promote smart grid awareness and making the existing transmission system smarter by investing in newtechnology.

Graduate Attributes (As per NBA)

Engineering Knowledge, Problem Analysis, Design/ Development of Solutions, Conduct investigations of complex problems, Modern Tool Usage, The Engineer and Society, , Ethics, Individual and Team Work, Communication, Life-long Learning.

B.E ELECTRICAL AND ELECTRONICS ENGINEERING(EEE)
CHOICE BASED CREDIT SYSTEM (CBCS)
SEMESTER –VIII

17EE831 SMART GRID(Professional Elective) (continued)

Question paper pattern:

- The question paper will have ten questions.
- Each full question is for 16 marks.
- There will be 2full questions (with a maximum of four sub questions in one full question) from each module.
- Each full question with sub questions will cover the contents under a module.
- Students will have to answer 5 full questions, selecting one full question from each module.

Textbook

1	Smart Grid, Fundamentals of Design and Analysis	James Momoh	Wiley	1st Edition, 2012

OPERATION AND MAINTENANCE OF SOLAR ELECTRICSYSTEMS
(Professional Elective)
B.E., VIII Semester, Electrical and Electronics Engineering [As per Choice Based Credit System (CBCS) scheme]

Course Code	17EE832	CIE Marks	40
Number of Lecture Hours/Week	03	SEE Marks	60
Total Number of Lecture Hours	40	Exam Hours	03

Credits - 03

Course objectives:

- To discuss basics of solar resource data, its acquisition and usage.
- To discuss PV technology, buying the PV modules and connecting the modules to form arrays.
- To discuss inverters, system components, cabling used to connect the components and mounting methods of the PV system.
- To explain site assessment, design process of the grid connected system and its sizing.
- To explain installation, commissioning, operation and maintenance of PV systems.
- To explain the types of financial incentives available, calculation of payback time.

Module-1	**Teaching Hours**
Solar Resource and Radiation: Solar resources, Quantifying solar radiation, The effect of the Earth's atmosphere on solar radiation, Sun geometry, Geometry for installing solar arrays. **PV Industry and Technology:** Semiconductor devices, Mainstream technologies, Monocrystalline silicon ,Multicrystalline/polycrystalline silicon, Thin film solar cells, Contacts, Buying solar modules, Standards, Certifications, Warranties, Emerging technologies, Dye-sensitized solar cells,Sliver cells, Heterojunction with intrinsic thin layer (HIT) photovoltaic cells,III-V Semiconductors, Solar concentrators. **PV Cells, Modules and Arrays:** Characteristics of PV cells, Graphic representations of PV cell performance, Connecting PV cells to create a module, Specification sheets, Creating a string of modules, Creating an array, Photovoltaic array performance, Irradiance, Temperature,Shading.	**08**
Revised Bloom's Taxonomy Level L_1 – Remembering, L_2 – Understanding, L_3 – Applying.	
Module-2	
Inverters and Other System Components: Introduction, Inverters, Battery inverters, Grid-interactive inverters, Transformers, Mainstream inverter technologies, String inverters, Multi-string inverter, Central inverter, Modular inverters, Inverter protection systems, Self-protection, Grid protection, Balance of system equipment: System equipment excluding the PV array and inverter, Cabling, PV combiner box,Module junction box, Circuit breakers and fuses ,PV main disconnects/isolators, Lightning and surge protection, System monitoring, Metering, Net metering, Gross metering. Mounting Systems: Roof mounting systems, Pitched roof mounts, Pitched roof mounts for tiled roofs, Pitched roof mounts for metal roofs, Rack mounts, Direct mounts, Building-integrated systems, Ground mounting systems, Ground rack mounts, Pole mounts, Sun-tracking systems, Wind loading, Lightning protection.	**08**
Revised Bloom's Taxonomy Level L_1 – Remembering, L_2 – Understanding, L_3 – Applying, L_4 – Analysing.	
Module-3	

Site Assessment: Location of the PV array, Roof specifications, Is the site shade-free?,Solar Pathfinder,SolmetricSuneye, HORIcatcher,iPhone apps,Software packages, Available area,Portrait installation, Landscape installation, Energy efficiency initiatives,Health, safety and environment (HSE) risks,Local environment, Locating balance of system equipment, Site plan. **Designing Grid-connected PV Systems:** Design brief, Existing system evaluation, choosing system components, Modules, Mounting structure, Inverters, Cabling,Voltage sizing, Current sizing, Monitoring, System protection, Over-current protection,Fault-current protection, Lightning and surge protection, Grounding/earthing, Mechanical protection, Array protection, Sub-array protection, Extra low voltage (ELV) segmentation. **Sizing a PV System:** Introduction, Matching voltage specifications,Calculating maximum voltage,Calculating minimum voltage,Calculating the minimum number of modules in a string,Calculating the maximum voltage,Calculating the maximum number of modules in a string,Calculating the	**08**

B.E ELECTRICAL AND ELECTRONICS ENGINEERING(EEE)
CHOICE BASED CREDIT SYSTEM (CBCS)
SEMESTER - VIII

17EE832 OPERATION AND MAINTENANCE OF SOLAR ELECTRICSYSTEMS
(Professional Elective)(continued)

Module-3 (continued)		**Teaching Hours**
minimum voltage,Calculating the minimum number of modules in a string,Matching current specifications,Matching modules to the inverter's power rating,Losses in utility-interactive PV systems,Temperature of the PV module,Dirt and soiling,Manufacturer's tolerance,Shading,Orientation and module tilt angle,Voltage drop,Inverter efficiency, Calculating system yield. ■		
Revised Bloom's Taxonomy Level	L_1 – Remembering, L_2 – Understanding.	
Module-4		
Installing Grid-connected PV Systems: PV array installation, DC wiring, Cabling routes and required lengths,Cable sizing, PV combiner box,System grounding/earthing, Inverter installation, Installation checklist, ,Interconnection with the utility grid, Required information for installation,Safety. **System Commissioning:** Introduction, Final inspection of system installation, Testing, Commissioning, System documentation. **System Operation and Maintenance:** System maintenance, PV array maintenance, Inverter maintenance, System integrity, Troubleshooting, Identifying the problem, Troubleshooting PV arrays, Troubleshooting underperforming systems, Troubleshooting inverters, Other common problems. ■		**08**
Revised Bloom's Taxonomy Level	L_1 – Remembering, L_2 – Understanding.	
Module-5		
Marketing and Economics of Grid-connected PV Systems:Introduction, PV system costing,Valuing a PV system,Simple payback and financial incentives,Simple payback,Feed-in tariffs,Rebates,Tax incentives,Loans,Renewable portfolio standards and renewable energy certificates,Marketing,Insurance. **Case Studies:**Case studies A to G.		**08**
Revised Bloom's Taxonomy Level	L_1 – Remembering, L_2 – Understanding.	

Course outcomes:

At the end of the course the student will be able to:

- Discuss basics of solar resource data, its acquisition and usage.
- Explain PV technology, buying the PV modules and connecting the modules to formarrays.
- Explain the use of inverters, other system components, cabling used to connect the components and mounting methods of the PV system.
- Assess the site for PV system installation.
- Design a grid connected system and compute its size.
- Explain installation, commissioning, operation and maintenance of PV systems.

- Explain the types of financial incentives available, calculation of payback time

Graduate Attributes (As per NBA)

Engineering Knowledge, Problem Analysis, Design/ Development of Solutions, Conduct investigations of complex problems, Modern Tool Usage, The Engineer and Society, Environment and Sustainability, Ethics, Individual and Team Work, Communication, Project Management and Finance, Life-long Learning.

Question paper pattern:

- The question paper will have ten questions.
- Each full question is for 16 marks.
- There will be 2full questions (with a maximum of four sub questions in one full question) from each module.
- Each full question with sub questions will cover the contents under a module.
- Students will have to answer 5 full questions, selecting one full question from each module.

B.E ELECTRICAL AND ELECTRONICS ENGINEERING(EEE)
CHOICE BASED CREDIT SYSTEM (CBCS)
SEMESTER - VIII

17EE832 OPERATION AND MAINTENANCE OF SOLAR ELECTRICSYSTEMS
(Professional Elective)(continued)

Textbook

1	Grid-connected Solar Electric Systems, The Earthscan Expert Handbook for Planning, Design and Installation	Geoff Stapleton and Susan Neill	Earthscan	1st Edition, 2012

INTEGRATION OF DISTRIBUTED GENERATION(Professional Elective)
B.E., VIII Semester, Electrical and Electronics Engineering [As per Choice Based Credit System (CBCS) scheme]

Course Code	17EE833	CIE Marks	40
Number of Lecture Hours/Week	03	SEE Marks	60
Total Number of Lecture Hours	40	Exam Hours	03

Credits - 03

Course objectives:

- To explain power generation by alternate energy source like wind power and solar power.
- To explain selection of size of units and location for wind and solar systems.
- Discuss the effects of integration of distributed generation on the performance the system.

Module-1	**Teaching Hours**
Distributed Generation: Introduction,Sources of Energy - Wind Power, Solar Power, Combined Heat-and-Power, Hydropower, Tidal Power, Wave Power, Geothermal Power, Thermal Power Plants.	**08**
Revised Bloom's Taxonomy Level L_1 – Remembering, L_2 – Understanding, L_3 – Applying.	
Module-2	
Distributed Generation (continued): Interface with the Grid. **Power System Performance**: Impact of Distributed Generation on the Power System, Aims of the Power System, Hosting Capacity Approach, Power Quality, Voltage Quality and Design of Distributed Generation, Hosting Capacity Approach for Events, Increasing the Hosting Capacity. **Overloading and Losses**: Impact of Distributed Generation, Overloading: Radial Distribution Networks, Overloading: Redundancy and Meshed Operation, Losses. ■	**08**
Revised Bloom's Taxonomy Level L_1 – Remembering, L_2 – Understanding, L_3 – Applying, L_4 – Analysing.	
Module-3	
Overloading and Losses(continued): Increasing the Hosting Capacity. **Voltage Magnitude Variations:** Impact of Distributed Generation, Voltage Margin and Hosting Capacity, Design of Distribution Feeders, A Numerical Approach to Voltage Variations, Tap Changers with Line-Drop Compensation, Probabilistic Methods for Design of Distribution Feeders. ■	**08**
Revised Bloom's Taxonomy Level L_1 – Remembering, L_2 – Understanding, L_3 – Applying, L_4 – Analysing.	
Module-4	
Voltage Magnitude Variations (continued): Statistical Approach to Hosting Capacity, Increasing the Hosting Capacity. **Power Quality Disturbances:** Impact of Distributed Generation, Fast Voltage Fluctuations, Voltage Unbalance. ■	**08**
Revised Bloom's Taxonomy Level L_1 – Remembering, L_2 – Understanding.	
Module-5	
Power Quality Disturbances (continued): Low-Frequency Harmonics, High-Frequency Distortion, Voltage Dips, Increasing the HostingCapacity. ■	**08**
Revised Bloom's Taxonomy Level L_1 – Remembering, L_2 – Understanding.	

Course outcomes:

At the end of the course the student will be able to:

- Explain energy generation by wind power and solar power.
- Discuss the variation in production capacity at different timescales, the size of individual units, and the

B.E ELECTRICAL AND ELECTRONICS ENGINEERING(EEE)
CHOICE BASED CREDIT SYSTEM (CBCS)
SEMESTER - VIII

17EE833 INTEGRATION OF DISTRIBUTED GENERATION(Professional Elective)(continued)

Course outcomes (continued):

- Explain the performance of the system when distributed generation is integrated to the system.
- Discuss effects of the integration of DG: the increased risk of overload and increased losses.
- Discuss effects of the integration of DG: increased risk of overvoltages, increased levels of power quality disturbances.
- Discuss effects of the integration of DG: incorrect operation of the protection
- Discuss the impact the integration of DG on power system stability and operation. ■

Graduate Attributes (As per NBA)

Engineering Knowledge, Problem Analysis, Design/ Development of Solutions,Conduct investigations of complex problems, Modern Tool Usage, The Engineer and Society, Ethics, Individual and Team Work, Communication,Project Management and Finance, Life-long Learning.

Question paper pattern:

- The question paper will have ten questions.
- Each full question is for 16 marks.
- There will be 2full questions (with a maximum of four sub questions in one full question) from each module.
- Each full question with sub questions will cover the contents under a module.
- Students will have to answer 5 full questions, selecting one full question from each module. ■

Textbook

1	Integration ofDistributedGeneration in thePower System	Math Bollen	Wiley	2011

POWER SYSTEM IN EMERGENCIES(Professional Elective)
B.E., VIII Semester, Electrical and Electronics Engineering [As per Choice Based Credit System (CBCS) scheme]

Course Code	17EE834	CIE Marks	40
Number of Lecture Hours/Week	03	SEE Marks	60
Total Number of Lecture Hours	40	Exam Hours	03

Credits - 03

Course objectives:

- To discuss the disturbances that may occur in a power system and the impact of them on its viable operation.
- To give the definitions, concepts and standard terminology used in the literature on emergency control and to discuss the effect of system structure on the form of emergencycontrol.
- To discuss the structure, function and alternatives for main transmission.
- To discuss standards of security and quality of supply in planning and operation,timescales andtasks in system operation and control.
- To discuss SCADA facilities - functions, structure, performance criteria, data and human - computer interface.
- To discuss energy management systems, communications, telemetry, telecommand and distributed generation.
- To discuss factors affecting the onset, severity and propagation of a disturbance, measures to minimize the risk.
- To discuss weather related disturbances that can occur in the power systems and aids to the restoration process and problems which hinder restoration.
- To discuss different simulators that can be used in training.
- To discuss facilities and characteristics for emergency control, qualitative and quantitative benefits of emergency control and emergency control in the future.

Module-1		**Teaching Hours**
Disturbances in Power Systems and their Effects: Sudden Disturbance, Predictable Disturbances, Forms of System Failure, Analysis Techniques, Trends in the Development of Analytical Techniques. **Some General Aspects of Emergency Control:** Definitions and Concepts used in Emergency Control, Some Standard Terminology, The Effects of Various Types of Fault or Disturbance on System Performance, Typical Pattern of the Development of a Sudden Disturbance, Conceptual Forms of Emergency Control, Effect of System Structure on the Need for and Implementation of Emergency Control, Design Criteria for Emergency Control Facilities.		**08**
Revised Bloom's Taxonomy Level	L_1 – Remembering, L_2 – Understanding, L_3 – Applying.	
Module-2		
The Power System and its Operational and Control Infrastructure: Structure, The Functions of Interconnection, The Alternatives for Main Transmission, Security and Quality of Supply in Planning and Operation, Timescales in System Operation and Control, SCADA, Energy Management Systems, Communications and Telemetry,Telecommand, Distributed Generation, Flexible AC Transmission Systems (FACTS).		**08**
Revised Bloom's Taxonomy Level	L_1 – Remembering, L_2 – Understanding, L_3 – Applying, L_4 – Analysing.	
Module-3		
Measures to Minimize the Impact of Disturbances: Factors in Onset, Severity and Propagation of a Disturbance, Measures in the Planning Timescale to Minimize the Risk of a Disturbance, Measures in the Operational Timescale to Minimize the Risk and Impact of a Disturbance, Special Protection Schemes, Reduction in the Spread of Disturbances, Measures to Minimize the Impact of Predictable Disturbances, An Approach to Managing Resources, The Control Centre.		**08**
Revised Bloom's Taxonomy Level	L_1 – Remembering, L_2 – Understanding, L_3 – Applying, L_4 – Analysing.	
Module-4		
The Natural Environment - Some Disturbances Reviewed: Introduction, Useful Sources of Information, Extreme Environmental Conditions, Noteworthy Disturbances,Incidents.		**08**

B.E ELECTRICAL AND ELECTRONICS ENGINEERING(EEE)
CHOICE BASED CREDIT SYSTEM (CBCS)
SEMESTER - VIII

17EE834 POWER SYSTEM IN EMERGENCIES(Professional Elective) (continued)

Module-4 (continued)		**Teaching Hours**
Restoration: Introduction, The Range of Disturbed System Conditions, Some General Issues in Restoration, Recovery from an Abnormal Operating Situation, Local Islanding or Localized Loss of Demand, The 'Black Start' Situation,Strategies for Restoration of the Whole System, Aides in Restoration Process, Problems Found in Restoration, Analysis, Simulation and Modelling in Blackstart, Restoration from a Foreseen Disturbance. **Training and Simulators for Emergency Control:** Introduction, Training in General, The Need for Operator Training, The Content of Training, Forms of Training, Training Simulators, The Use of Dispatch Training Simulators in Practice.		
Revised Bloom's Taxonomy Level	L_1 – Remembering, L_2 – Understanding.	
Module-5		
Plant Characteristics and Control Facilities for Emergency Control and Benefits to be Obtained: Introduction, The Characteristics and Facilities Required for Emergency Control, The System and Demand, System Control Costs for Emergencies, Indirect Costs, The Benefits of Emergency Control, Quantitative Aspects,Is Emergency Control Worthwhile? **Systems and Emergency Control in the Future:** Introduction, Changes in Organization, Restructuring, Unbundling and Emergency Control, Facilities for Emergency Control in the Future, Superconductivity, Contingency Planning and Crisis. ■		**08**
Revised Bloom's Taxonomy Level	L_1 – Remembering, L_2 – Understanding.	

Course outcomes:

At the end of the course the student will be able to:

- Explain disturbances that may occur in a power system and the impact of them on its operation.
- Give the definitions, concepts and standard terminology used in the literature on emergency control and discuss the effect of system structure on the form of emergency control
- Discuss the structure, function and alternatives for main transmission
- To discuss standards of security and quality of supply in planning and operation,timescales, tasks in system operation and control, SCADA facilities - functions, structure, performance criteria, data and human - computer interface
- To discuss energy management systems, communications, telemetry, telecommand and distributed generation.
- To discuss factors affecting the onset, severity and propagation of a disturbance, measures to minimize the risk
- To discuss weather related disturbances that can occur in the power systems and aids to the restoration process and problems which hinder restoration
- To discuss different simulators used in training, facilities and characteristics for emergency control, and benefits of emergency control and emergency control in the future. ■

Graduate Attributes (As per NBA)

Engineering Knowledge, Problem Analysis, Design/ Development of Solutions,Conduct investigations of complex problems, Modern Tool Usage, The Engineer and Society, Ethics, Individual and Team Work, Communication,Project Management and Finance, Life-long Learning.

Question paper pattern:

- The question paper will have ten questions.
- Each full question is for 16 marks.
- There will be 2full questions (with a maximum of four sub questions in one full question) from each

module.

- Each full question with sub questions will cover the contents under a module.
- Students will have to answer 5 full questions, selecting one full question from eachmodule.

Textbook

1	Power Systems in Emergencies: From Contingency Planning to Crisis Management	U. G. Knight	Wiley	1st Edition, 2001

INTERNSHIP / PROFESSIONAL PRACTICE
B.E., VIII Semester, Electrical and Electronics Engineering [As per Choice Based Credit System (CBCS) scheme]

Course Code	17EE84	CIE Marks	50
Number of Practical Hours/Week	--	Exam Hours	--
Total Number of Practical Hours	--	Exam Marks	50

Credits - 02

Course objectives:

Internship/Professional practice provide students the opportunity of hands-on experience that include personal training, time and stress management, interactive skills, presentations, budgeting, marketing, liability and risk management, paperwork, equipment ordering, maintenance, responding to emergencies etc. The objective are further,

- To put theory into practice.
- To expand thinking and broaden the knowledge and skills acquired through course work in the field.
- To relate to, interact with, and learn from current professionals in the field.
- To gain a greater understanding of the duties and responsibilities of a professional.
- To understand and adhere to professional standards in the field.
- To gain insight to professional communication including meetings, memos, reading, writing, public

Internship/Professional practice: Students under the guidance ofinternal guide/s and external guide shall take part in all the activities regularly to acquire as much knowledge as possible without causing any inconvenience at the place of internship.

Seminar: Each student, is required to

- Present the seminar on the internship orally and/or through power point slides.
- Answer the queries and involve in debate/discussion.
- Submit the report duly certified by the external guide.

The participants shall take part in discussion to foster friendly and stimulating environment in which the students are motivated to reach high standards and become self-confident.

Revised Bloom's Taxonomy Level	L_3 – Applying, L_4 – Analysing, L_5 – Evaluating, L_6 – Creating

Course outcomes:

At the end of the course the student will be able to:

- Gain practical experience within industry in which the internship is done.
- Acquire knowledge of the industry in which the internship is done.
- Apply knowledge and skills learned to classroom work.
- Develop a greater understanding about career options while more clearly defining personal career goals.
- Experience the activities and functions of professionals.
- Develop and refine oral and written communication skills.

Graduate Attributes (As per NBA):
Engineering Knowledge, Problem Analysis, Design / development of solutions, Conduct investigations of complex Problems, Modern Tool Usage, Engineers and society, Environment and sustainability, Ethics, Individual and Team work, Communication.

B.E ELECTRICAL AND ELECTRONICS ENGINEERING (EEE)
CHOICE BASED CREDIT SYSTEM (CBCS)
SEMESTER - VIII

17EE84INTERNSHIP / PROFESSIONAL PRACTICE(continued)

Continuous Internal Evaluation

CIE marks for the Internship/Professional practicereport (25 marks)and seminar (25 marks) shall be awarded (based on the quality of report and presentation skill, participation in the question and answer session by the student) by the committee constituted for the purpose by the Head of the Department. The committee shall consist of three faculty from the department with the senior most acting as the Chairman. ■

Semester End Examination

SEE marks for the project report (25 marks)and seminar (25 marks) shall be awarded (based on the quality of report and presentation skill, participation in the question and answer session) by the examiners appointed by the University.■

PROJECT WORK PHASE -II
B.E., VIII Semester, Electrical and Electronics Engineering
[As per Choice Based Credit System (CBCS) scheme]

Course Code	17EEP85	CIE Marks	100
Number of Practical Hours/Week	--	Exam Hours	--
Total Number of Practical Hours	--	Exam Marks	100

Credits - 06

Course objectives:

- To support independent learning.
- To guide to select and utilize adequate information from varied resources maintaining ethics.
- To guide to organize the work in the appropriate manner and present information (acknowledging the sources) clearly.
- To develop interactive, communication, organisation, time management, and presentation skills.
- To impart flexibility and adaptability.
- To inspire independent and team working.
- To expand intellectual capacity, credibility, judgement, intuition.
- To adhere to punctuality, setting and meeting deadlines.
- To instil responsibilities to oneself and others.
- To train students to present the topic of project work in a seminar without any fear, face audience confidently, enhance communication skill, involve in group discussion to present and exchangeideas. ■

Project Work Phase - II: Each student of the project batch shall involve in carrying out the project work jointly in constant consultation with internal guide, co-guide, and external guide and prepare the project report as per the norms avoiding plagiarism.

Revised Bloom's Taxonomy Level	L_3 – Applying, L_4 – Analysing, L_5 – Evaluating, L_6 – Creating

Course outcomes:

At the end of the course the student will be able to:

- Present the project and be able to defend it.
- Make links across different areas of knowledge and to generate, develop and evaluate ideas and information so as to apply these skills to the projecttask.
- Habituated to critical thinking and use problem solving skills
- Communicate effectively and to present ideas clearly and coherently in both the written and oralforms.
- Work in a team to achieve common goal.
- Learn on their own, reflect on their learning and take appropriate actions to improve it.

Graduate Attributes (As per NBA):
Engineering Knowledge, Problem Analysis, Design / development of solutions, Conduct investigations of complex Problems, Modern Tool Usage, Engineers and society, Environment and sustainability, Ethics, Individual and Team work, Communication.

Evaluation Procedure:
The Internal marks evaluation shall be based on project report and presentation of the same in a seminar.
Project Report:50 marks. The basis for awarding the marks shall be the involvement of individual student of the project batch in carrying the project and preparation of project report. To be awarded by the internal guide in consultation with external guide if any.
Project Presentation:50 marks. Each student of the project batch shall present the topic of Project Work Phase - II orally and/or through power point slides.
The Project Presentation marks of the Project Work Phase -II shall be awarded by the committee constituted for the purpose by the Head of the Department. The committee shall consist of three faculty from the department with the senior most acting as the Chairman.
The student shall be evaluated based on:
Presentation skill for 30 marks and ability in the Question and Answer session for 20 marks. ■

Semester End Examination
SEE marks for the project (100 marks)shall be awarded (based on the quality of report and presentation skill, participation in the question and answer session) as per the University norms by the examiners appointed VTU. ■

SEMINAR
B.E., VIII Semester, Electrical and Electronics Engineering
[As per Choice Based Credit System (CBCS) scheme]

Course Code	17EES86	CIE Marks	100
Number of Practical Hours/Week	--	Exam Hours	--
Total Number of Practical Hours	--	Exam Marks	--

Credits - 01

Course objectives:

The objective of the seminar is to inculcate self-learning, face audience confidently, enhance communication skill, involve in group discussion and present and exchange ideas.

Each student, under the guidance of a Faculty, is required to

Choose, preferably, a recent topic of his/her interest relevant to the Course of Specialization.

- Carryout literature survey, organize the Course topics in a systematic order.
- Prepare the report with own sentences.
- Type the matter to acquaint with the use of Micro-soft equation and drawing tools or any such facilities.
- Present the seminar topic orally and/or through power point slides.
- Answer the queries and involve in debate/discussion.
- Submit typed report with a list of references.

The participants shall take part in discussion to foster friendly and stimulating environment in which the students are motivated to reach high standards and become self-confident. ■

Revised Bloom's Taxonomy Level	L_3 – Applying, L_4 – Analysing, L_5 – Evaluating, L_6 – Creating

Course outcomes:

At the end of the course the student will be able to:

- Attain, use and develop knowledge in the field of electrical and electronics engineering and other disciplines through independent learning and collaborative study.
- Identify, understand and discuss current, real-time issues
- Improve oral and written communication skills
- Explore an appreciation of the self in relation to its larger diverse social and academic contexts.

Graduate Attributes (As per NBA):

Engineering Knowledge, Problem Analysis, Design / development of solutions, Conduct investigations of complex Problems, Modern Tool Usage, Engineers and society, Environment and sustainability, Ethics, Individual and Team work, Communication.

Evaluation Procedure:

The CIE marks for the seminar shall be awarded (based on the relevance of the topic, presentation skill, participation in the question and answer session and quality of report) by the committee constituted for the purpose by the Head of the Department. The committee shall consist of three faculties from the department with the senior most acting as the Chairman.

Marks distribution for internal assessment of the course 15EES86 seminar:

Seminar Report: 30 marks

Presentation skill:50 marks

Question and Answer:20 marks.■

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELGAUM
CHOICE BASED CREDIT SYSTEM (CBCS)
CIVIL ENGINEERING BOARD
BE-CBCS SYLLABUS 2017-18 Scheme

8th Semester

Course Title: QUANTITY SURVEYING AND CONTRACTS MANAGEMENT
As per Choice Based Credit System (CBCS) scheme
SEMESTER:VIII

Subject Code	**17CV81**	**IA Marks**	**40**
Number of Lecture Hours/Week	**04**	**Exam Marks**	**60**
Total Number of Lecture Hours	**50**	**Exam Hours**	**03**
	CREDITS –04	**Total Marks- 100**	

Course objectives: This course will enable students to;

1. Estimate the quantities of work, develop the bill of quantities and arrive at the Cost of civil engineering Project
2. Understand and apply the concept of Valuation for Properties
3. Understand, Apply and Create the Tender and Contract document.

Module -1

Quantity Estimation for Building; study of various drawing attached with estimates, important terms, units of measurements, abstract, Types of estimates - Approximate, detailed, supplementary and revised, Estimation of building - Short wall and long wall method - centre line method.

Estimate of R.C.C structures including Slab, beam, column, footings, with bar bending schedule.

L2,L3

Module -2

Estimate of Steel truss, manhole and septic tanks.

Quantity Estimation for Roads: Road estimation, earthwork fully in banking, cutting, partly cutting and partly Filling, Detailed estimate and cost analysis for roads.

L1,L2,L3

Module -3

Specification for Civil Engineering Works: Objective of writing specifications essentials in specifications, general and detail specifications of different items of works in buildings,

Analysis of Rates : Factors Affecting Cost of Civil Works , Concept of Direct Cost , Indirect Cost and Project Cost

Rate analysis and preparation of bills, Data analysis of rates for various items of Works, Sub-structure components, Rate analysis for R.C.C. slabs, columns and beams.

L1,L2,L3

Module-4

Contract Management-Tender and its Process: Invitation to tender, Prequalification, administrative approval & Technical sanction. Bid submission and Evaluation process. Contract Formulation: covering Award of contract, letter of intent, letter of acceptance and notice to proceed. Features / elements of standard Tender document (source: PWD / CPWD / International Competitive Bidding – NHAI / NHEPC / NPC).

Law of Contract as per Indian Contract act 1872 , Types of Contract, Entire contract, Lump sum contract, Item rate, % rate, Cost plus with Target, Labour, EPC and BOT, Sub Contracting.

Contract Forms : FIDIC contract Forms , CPWD , NHAI , NTPC , NHEPC

L1,L2,L3

Module -5

Contract Management-Post award : Basic understanding on definitions, Performance security, Mobilization and equipment advances, Secured Advance, Suspension of work, Time limit for completion, Liquidated damages and bonus, measurement and payment, additions and alterations or variations and deviations, breach of contract, Escalation, settlement of account or final payment, claims, Delay's and Compensation, Disputes & its resolution mechanism, Contract management and administration

Valuation: Definitions of terms used in valuation process, Cost, Estimate, Value and its relationship, Capitalized value. Concept of supply and demand in respect to properties (land , building , facilities'), freehold and lease hold , Sinking fund, depreciation–methods of estimating depreciation, Outgoings, Process and methods of valuation : Rent fixation,

valuation for mortgage, valuation of land.

L1,L2,L3

Course outcomes: After studying this course, students will be able to:

1. Prepare detailed and abstract estimates for roads and building.
2. Prepare valuation reports of buildings.
3. Interpret Contract document's of domestic and international construction works

Program Objectives:

- Engineering knowledge
- Problem analysis
- Interpretation of data

Text Books:

1. Datta B.N., "Estimating and costing", UBSPD Publishing House, New Delhi
2. B.S. Patil, " Civil Engineering Contracts and Estimates", Universities Press
3. M. Chakraborthi; "Estimation, Costing and Specifications", Laxmi Publications
4. MORTH Specification for Roads and Bridge Works – IRC New Delhi

Reference Books:

1. Kohli D.D and Kohli R.C, " Estimating and Costing",12 th Edition, S.Chand Publishers, 2014.
2. Vazirani V.N and Chandola S.P, " Estimating and costing", Khanna Publishers, 2015.
3. Rangwala, C. "Estimating, Costing and Valuation", Charotar Publishing House Pvt. Ltd., 2015.
4. Duncan Cartlidge , "Quantity Surveyor's Pocket Book", Routledge Publishers, 2012.
5. Martin Brook, "Estimating and Tendering for Construction Work", A Butterworth-Heinemann publishers, 2008.
6. Robert L Peurifoy , Garold D. Oberlender , " Estimating Construction Costs" – 5ed , Tata McGraw-Hill , New Delhi
7. David Pratt , " Fundamentals of Construction Estimating" – 3ed ,
8. PWD Data Book ,CPWD Schedule of Rates (SoR). and NH SoR – Karnataka
9. FIDIC Contract forms
10. B.S. Ramaswamy " Contracts and their Management" 3ed , Lexis Nexis (a division of Reed Elsevier India Pvt Ltd)

Course Title: DESIGN OF PRE STRESSED CONCRETE ELEMENTS As per Choice Based Credit System (CBCS) scheme] SEMESTER:VIII			
Subject Code	**17CV82**	**IA Marks**	**40**
Number of Lecture Hours/Week	**04**	**Exam Marks**	**60**
Total Number of Lecture Hours	**50**	**Exam Hours**	**03**
CREDITS –04		**Total Marks- 100**	

Course objectives: This course will enable students to learn Design of Pre Stressed Concrete Elements

Module -1

Introduction and Analysis of Members: Concept of Prestressing - Types of Prestressing - Advantages - Limitations –Prestressing systems - Anchoring devices - Materials - Mechanical Properties of high strength concrete - high strength steel - Stress-Strain curve for High strength concrete.
Analysis of members at transfer - Stress concept - Comparison of behavior of reinforced concrete - prestressed concrete - Force concept - Load balancing concept - Kern point - Pressure line.

L1,L2

Module -2

Losses in Prestress: Loss of Prestress due to Elastic shortening, Friction, Anchorage slip, Creep of concrete, Shrinkage of concrete and Relaxation of steel - Total Loss.
Deflection and Crack Width Calculations of Deflection due to gravity loads - Deflection due to prestressing force -Total deflection - Limits of deflection - Limits of span-to-effective depth ratio -Calculation of Crack Width - Limits of crack width.

L1,L2

Module -3

Design of Sections for Flexure: Analysis of members at ultimate strength - Preliminary Design - Final Design for Type 1members

L1,L2,L3

Module -4

Design for Shear: Analysis for shear - Components of shear resistance - Modes of Failure - Limit State of collapse for shear - Design of transverse reinforcement.

L1,L2,L3

Module -5

Composite Sections: Types of composite construction - Analysis of composite sections - Deflection –Flexural and shear strength of composite sections.

L1,L2,L3

Course outcomes: After studying this course, students will be able to:

- Understand the requirement of PSC members for present scenario.
- Analyse the stresses encountered in PSC element during transfer and at working.
- Understand the effectiveness of the design of PSC after studying losses
- Capable of analyzing the PSC element and finding its efficiency.
- Design PSC beam for different requirements.

Course Title: EARTHQUAKE ENGINEERING
As per Choice Based Credit System (CBCS) scheme]
SEMESTER:VIII

Subject Code	**17CV831**	**IA Marks**	**40**
Number of Lecture Hours/Week	**03**	**Exam Marks**	**60**
Total Number of Lecture Hours	**40**	**Exam Hours**	**03**
	CREDITS –03	**Total Marks-**	**100**

Course Objectives: This course will enable students to learn about

1. Fundamentals of engineering seismology
2. Irregularities in building which are detrimental to its earthquake performance
3. Different methods of computation seismic lateral forces for framed and masonry structures
4. Earthquake resistant design requirements for RCC and Masonry structures
5. Relevant clauses of IS codes of practice pertinent to earthquake resistant design of structures

Module -1

Engineering Seismology: Terminologies (Focus, Focal depth, Epicenter, etc.); Causes of Earthquakes; Theory of plate tectonics; Types and characteristics faults; Classification of Earthquakes; Major past earthquakes and their consequences; Types and characteristics of seismic waves; Magnitude and intensity of earthquakes; local site effects; Earthquake ground motion characteristics: Amplitude, frequency and duration; Seismic zoning map of India; (Problems on computation of wave velocities. Location of epicenter, Magnitude of earthquake)

L1,L2,L3

Module -2

Response Spectrum: Basics of structural dynamics; Free and forced vibration of SDOF system; Effect of frequency of input motion and Resonance; Numerical evaluation of response of SDOF system (Linear acceleration method), Earthquake Response spectrum: Definition, construction, Characteristics and application; Elastic design spectrum.

L1,L2,L3

Module -3

Seismic Performance of Buildings and Over View of IS-1893 (Part-1): Types of damages to building observed during past earthquakes; Plan irregularities; mass irregularity; stiffness irregularity; Concept of soft and weak storey; Torsional irregularity and its consequences; configuration problems; continuous load path; Architectural aspects of earthquake resistant buildings; Lateral load resistant systems. Seismic design philosophy; Structural modeling; Code based seismic design methods.

L1,L2,L3

Module -4

Determination of Design Lateral Forces: Equivalent lateral force procedure and dynamic analysis procedure. Step by step procedures for seismic analysis of RC buildings using Equivalent static lateral force method and response spectrum methods (maximum of 4 storeys and without infill walls).

L2,L3,L4

Module -5

Earthquake Resistant Analysis and Design of RC Buildings: Typical failures of RC frame structures, Ductility in Reinforced Concrete, Design of Ductile Reinforced Concrete Beams, Seismic Design of Ductile Reinforced Concrete column, Concept of weak beam-strong column, Detailing of Beam-Column Joints to enhance ductility, Detailing as per IS-13920. Retrofitting of RC buildings

Earthquake Resistant Design of Masonry Buildings: Performance of Unreinforced, Reinforced, Infill Masonry Walls, Box Action, Lintel and sill Bands, elastic properties of structural masonry, lateral load analysis, Recommendations for Improving performance of Masonry Buildings during earthquakes; Retrofitting of Masonry buildings.

L2,L3,L4

Course outcomes: After studying this course, students will be able to:

1. Acquire basic knowledge of engineering seismology
2. Develop response spectra for a given earthquake time history and its implementation to estimate response of a given structure.
3. Understanding of causes and types of damages to civil engineering structures during different earthquake scenarios
4. Analyze multi-storied structures modeled as shear frames and determine lateral force distribution due to earthquake input motion using IS-1893 procedures.
5. Comprehend planning and design requirements of earthquake resistant features of RCC and Masonry structures thorough exposure to different IS-codes of practices.

Program Objectives:

1. Engineering knowledge
2. Problem analysis
3. Interpretation of data

Text Books:

- Pankaj Agarwal and Manish Shrikande, "Earthquake resistant design of structures", PHI India.
- S.K. Duggal, "Earthquake Resistant Design of Structures", Oxford University Press
- Anil K. Chopra, "Dynamics of Structures: Theory and Applications to Earthquake Engineering", Pearson Education, Inc.
- T. K. Datta, "Seismic Analysis of Structures", John Wiley & Sons (Asia) Ltd.

Reference Books:

1. David Dowrick, "Earthquake resistant design and risk reduction", John Wiley and Sons Ltd.
2. C. V. R. Murty, Rupen Goswami, A. R. Vijayanarayanan & Vipul V. Mehta, "Some Concepts in Earthquake Behaviour of Buildings", Published by Gujarat State Disaster Management Authority, Government of Gujarat.
3. IS-13920 – 2016, Ductile Detailing of Reinforced Concrete Structures Subjected to Seismic Forces, BIS, New Delhi
4. IS-1893 – 2016, Indian Standard Criteria for Earthquake Resistant Design of Structures, Part-1, BIS, New Delhi
5. IS- 4326 – 2013, Earthquake Resistant Design and Construction of Buildings, BIS, New Delhi.
6. IS-13828 – 1993, Indian Standard Guidelines for Improving Earthquake Resistance of Low Strength Masonry Buildings, BIS, New Delhi.
7. IS-3935 – 1993, Repair and Seismic Strengthening of Buildings-Guidelines, BIS, New Delhi.

Course Title: HYDRAULIC STRUCTURES
[As per Choice Based Credit System (CBCS) scheme]
SEMESTER:VIII

Subject Code	**17CV832**	**IA Marks**	**40**
Number of Lecture Hours/Week	**03**	**Exam Marks**	**60**
Total Number of Lecture Hours	**40**	**Exam Hours**	**03**
CREDITS – 03		**Total Marks-100**	

Course objectives: This course will enable students to;

- Analyze and design gravity dams.
- Find the cross-section of earth dam and estimate the seepage loss.
- Design spillways and aprons for diversion works.
- Design CD works and chose appropriate canal regulation works.

Module -1

Gravity Dams: Introduction, forces acting on dam, cause of failure, design principles, principal and shear stresses. Elementary profile and practical profile of a gravity dam. Drainage galleries.

L2, L3

Module -2

Earth Dams: Introduction, causes of failure of earth dams, preliminary section, Determination of parametric line by Casagrande's method. Estimation of seepage.

L2, L3

Module -3

Spillways: Types, Design of Ogee spillway, Upstream and downstream profiles, Energy dissipation devices.

Diversion Head works: Design of aprons- Bligh's and Koshla's theory, Simple Problems

L2, L3, L4

Module -4

Cross Drainage Works: Introduction, Type of C.D works, Design considerations for C.D works. Transition formula design of protection works, Design of only aqueduct.

L2, L3

Module -5

Canal Regulation Works: Introduction, Function of a regulator.
Canal falls: Necessity and types.
Canal outlets: Necessity and types.

L2, L3

Course outcomes: After studying this course, students will be able to:

- Check the stability of gravity dams and design the dam.
- Estimate the quantity of seepage through earth dams.
- Design spillways and aprons for various diversion works.
- Select particular type of canal regulation work for canal network.

Program Objectives:

1. Engineering knowledge
2. Problem analysis
3. Interpretation of data

Text Books:

1. S. K. Garg, "Irrigation Engineering and Hydraulic Structures", Khanna Publishers, New Delhi.
2. Punmia and PandeyLal, "Irrigation and Water Power Engineering" Lakshmi Publications, New Delhi.
3. K. R. Arora. "Irrigation, Water Power and Water Resources Engineering" Standard

Publications, New Delhi.

Reference Books:

1. R. K. Sharma, “Text Book of Irrigation Engineering and Hydraulic Structures”, Oxford and IBH, New Delhi.
2. P. N. Modi, “Irrigation, Water Resources and Water Power”, Standard Book House, New Delhi.

Course Title: PAVEMENT DESIGN As per Choice Based Credit System (CBCS) scheme] SEMESTER:VIII			
Subject Code	**17CV833**	**IA Marks**	**40**
Number of Lecture Hours/Week	**03**	**Exam Marks**	**60**
Total Number of Lecture Hours	**40**	**Exam Hours**	**03**
	CREDITS –03	**Total Marks-**	**100**

Course objectives: This course will enable students to

1. Gain knowledge about the process of collecting data required for design, factors affecting pavement design, and maintenance of pavement.
2. Excel in the path of analysis of stress, strain and deflection in pavement.
3. Understand design concepts of flexible pavement by various methods (CBR, IRC 37-2001, Mcleods, Kansas) and also the same of rigid pavement by IRC 58-2002
4. Understand the various causes leading to failure of pavement and remedies for the same.
5. Develop skills to perform functional and structural evaluation of pavement by suitable methods.

Module -1

Introduction: Desirable characteristics of pavement, Types and components, Difference between Highway pavement and Air field pavement, Design strategies of variables, Functions of sub grade, sub base, Base course, surface course, comparison between Rigid and flexible pavement

Fundamentals of Design of Pavements: Stresses and deflections, Principle, Assumptions and Limitations of Boussinesq's theory, Burmister theory and problems on above

L2, L3,L4

Module -2

Design Factors: Design wheel load, contact pressure, Design life, Traffic factors, climatic factors, Road geometry, Subgrade strength and drainage, ESWL concept Determination of ESWL by equivalent deflection criteria, Stress criteria, EWL concept, and problems on above.

Flexible pavement Design: Assumptions, Mcleod Method, Kansas method, CBR method, IRC Method (old), CSA method using IRC-37-2001, problems on above

L5,L6

Module -3

Flexible Pavement Failures, Maintenance and Evaluation: Types of failures, Causes, Remedial/Maintenance measures in flexible pavements, Functional Evaluation by Visual inspection and unevenness measurements, Structural evaluation by Benkleman beam deflection method, Falling weight deflectometer, GPR method. Design factors for runway pavements, Design methods for

Airfield pavement and problems on above

L4,L5

Module -4

Stresses in Rigid Pavement : Types of stress, Analysis of Stresses, Westergaard's Analysis, Modified Westergaard equations, Critical stresses, Wheel load stresses, Warping stress, Frictional stress, combined stresses (using chart / equations), problems on above

Design of Rigid Pavement: Design of CC pavement by IRC: 58-2002 for dual and Tandem axle load, Reinforcement in slabs, Design of Dowel bars, Design of Tie bars, Design factors for Runway pavements, Design methods for airfield pavements, problems of the above

L4,L5,L6

Module -5

Rigid Pavement Failures, Maintenance and Evaluation: Types of failures, causes, remedial/maintenance measures in rigid pavements, Functional evaluation by Visual inspection and unevenness measurements, wheel load and its repetition, properties of subgrade, properties of concrete. External conditions, joints, Reinforcement, Requirements of joints, Types of joints, Expansion joint, contraction joint, warping joint, construction joint, longitudinal joint, Design of joints

L4,L5

Course outcomes: After studying this course, students will be able to:

1. Systematically generate and compile required data's for design of pavement (Highway & Airfield).
2. Analyze stress, strain and deflection by boussinesq's, burmister's and westergaard's theory.
3. Design rigid pavement and flexible pavement conforming to IRC58-2002 and IRC37-2001.
4. Evaluate the performance of the pavement and also develops maintenance statement based on site specific requirements.

Program Objectives:

- Engineering knowledge
- Problem analysis
- Interpretation of data

Text Books:

1. S K Khanna, C E G Justo, and A Veeraragavan, "Highway Engineering", Nem Chand & Brothers
2. L.R.Kadiyali and Dr.N.B.Lal, " Principles and Practices of Highway Engineering", Khanna publishers
3. Yang H. Huang , "Pavement Analysis and Design", University of Kentucky

Reference Books:

1. Yoder & wit zorac , "Principles of pavement design", John Wiley & Sons.
2. Subha Rao, "Principles of Pavement Design".
3. R Srinivasa Kumar, "Pavement Design" , University Press.
4. Relevant recent IRC codes

Course Title: ADVANCED FOUNDATION DESIGN
As per Choice Based Credit System (CBCS) scheme]
SEMESTER:VIII

Subject Code	**17CV834**	**IA Marks**	**40**
Number of Lecture Hours/Week	**03**	**Exam Marks**	**60**
Total Number of Lecture Hours	**40**	**Exam Hours**	**03**
	CREDITS –03	**Total Marks-**	**100**

Course objectives: This course will enable students to

1. Gain knowledge of about advanced topics of foundation design and analyses, supplementing their comprehensive knowledge acquired in basic foundation engineering course (15CV53)
2. Develop profound understanding of shallow and deep foundation analyses
3. Develop understanding of choice of foundation design parameters
4. Learn about cause and effect of dynamic loads on foundation

Module -1

General bearing capacity equation – Terzaghi's, Brinch Hansen's and Mayerhof's analyses, bearing capacity of footings according to BIS, eccentrically loaded footing, footing on layered soil, Settlement of shallow Foundations: Immediate, consolidation, & differential settlements. Principles of design of footing, Proportioning of footings for equal settlement.

L1,L2

Module -2

Design of combined footings by Rigid method, Combined footings (rectangular & trapezoidal), strap footings. Types of rafts, bearing capacity & settlements of raft foundation, Design of raft foundation – Conventional rigid method, Elastic methods, Coefficient of sub-grade reaction, IS code (IS-2950) procedure

L2,L3

Module -3

Introduction Necessity of pile foundations, Classification, Load bearing capacity of single pile by Static formula, Dynamic formula, Pile load test and Penetration tests. Introduction, Pile groups, group action of piles in sand and clay, group efficiency of piles, settlement of piles, negative skin friction, laterally loaded piles and under reamed piles.

L1,L2,L3

Module -4

Well Foundations: Introduction, Different shapes and characteristics of wells. Components of well foundation. Forces acting on well foundation. Sinking of wells. Causes and remedies of tilts and shifts.

Drilled Piers & Caissons: Introduction, construction, advantages and disadvantages of drilled piers. Design of open, pneumatic and floating caissons. Advantages and disadvantages of floating caissons.

L1,L2,L3

Module -5

Machine Foundations: Introduction, free and forced vibrations, Types of Machine foundations, degrees of freedom of a block foundation, general criteria for design of machine foundation, vibration analysis of a machine foundation, determination of natural frequency, vibration isolation and control.

L1,L2,L3

Course outcomes: After studying this course, students will be able to:

4. Estimate the size of isolated and combined foundations to satisfy bearing capacity and settlement criteria.
5. Estimate the load carrying capacity and settlement of single piles and pile groups including laterally loaded piles
6. Understand the basics of analysis and design principles of well foundation, drilled piers and caissons
7. Understand basics of analysis and design principles of machine foundations

Program Objectives:

- Engineering knowledge
- Problem analysis
- Interpretation of data

Text Books:

1. Punmia B.C., "Soil Mechanics and Foundation Engineering", Laxmi Publications Co., India
2. Donald P. Coduto, "Geotechnical Engineering Principles & Practices", Prentice-hall of India Ltd, India
3. Murthy V.N.S., "Geotechnical Engineering: Principles and Practices of Soil Mechanics and Foundation Engineering", CRC Press, New York.

Reference Books:

1. Bowles J.E., "Foundation Analysis and Design", McGraw Hill Pub. Co. New York.
2. Swami Saran, "Analysis and Design of Substructures", Oxford & IBH Pub. Co. Pvt. Ltd., India
3. R.B. Peck, W.E. Hanson & T.H. Thornburn, "Foundation Engineering", Wiley Eastern Ltd., India
4. Braja, M. Das, "Principles of Geotechnical Engineering", Cengage Learning, India
5. Bureau of Indian Standards: IS-1904, IS-6403, IS-8009, IS-2950, IS-2911 and all other relevant codes.

Course Title: INTERNSHIP /PROFESSIONAL PRACTICE As per Choice Based Credit System (CBCS) scheme] SEMESTER:VIII			
Subject Code	**17CV84**	**IA Marks**	**50**
Number of Lecture Hours/Week	**Industry Oriented**	**Exam Marks**	**50**
Total Number of Lecture Hours	**Industry Oriented**	**Exam Hours**	**03**
	CREDITS –02	**Total Marks- 100**	

Course objectives: This course will enable students to get the field exposure and experience

Note: Internship /Professional Practice:

1. This shall be carried out by students in industry set-up related to the construction/ materials testing laboratories/research organizations/project management consulting firms/QS and QA organizations/ planning and design offices/Professional organisations like ACCE/ICI/INSTRUCT/RMCMA/QCI, PMI, CIDC etc. and other avenues related to the civil engineering domain in consultation and approval of internship guide/HOD /internship committees of the institutions.
2. The professional certification programs like ACCE(I)- SMP, ICI-BMTPC certifications, NSTRUCT-certifications, CIDC certifications, RMC-QCI's RMCPCS Certification Programs, RMCMA-NRMCA'S Concrete Technologist India(CTI) programs and such similar programs by professional bodies with adequate industry exposures at sites/RMC plants can be considered as Internship /Professional Practice with due approvals from the guide/HOD /internship committees of the institutions
3. The industry/organisation should issue certificates of internship offer and its completion. The offer letter should clearly have the nature of work to be done by the student and the supervisor's name and duration of internship.
4. The student shall make a midterm and final presentation of the activities undertaken during the first 6 weeks and at the end of 12th week of internship respectively, to a panel comprising internship guide, a senior faculty from the department and head of the department. Each student should submit the internship report at the end of semester with internship certificate.
5. Viva-Voce examination shall be conducted by a panel of examiners consisting of internship supervisor from industry or industry professional approved by university and internship guide from the institute.
6. The College shall facilitate and monitor the student internship program.
7. The internship should be completed during vacation after VI and VII semesters.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
CHOICE BASED CREDIT SYSTEM (CBCS)
SCHEME OF TEACHING AND EXAMINATION 2015-2016

B.E. Mechanical Engineering

VIII SEMESTER

Sl. No	Subject Code	Title	Teaching Hours /Week			Examination				Credits
			Lecture	Tutorial	Practical	Duration (Hours)	SEE Marks	CIE Marks	Total Marks	
1	17ME81	Operations Research	3	2	0	03	60	40	100	4
2	17ME82	Additive Manufacturing	4	0	0	03	60	40	100	4
3	17ME83X	Professional Elective - V	3	0	0	03	60	40	100	3
4	17ME84	Internship / Professional Practice	Industry Oriented			03	60	40	60	40
5	17ME85	Project Phase – II	-	6	-	03	60	40	200	6
6	17MES86	Seminar	-	4	-	-	60	40	100	1
TOTAL			**10**	**12**	**-**		**480**	**320**	**700**	**20**

Professional Elective-V	
15ME831	Cryogenics
15ME832	Experimental Stress Analysis
15ME833	Theory of Plasticity
15ME834	Green Manufacturing
15ME835	Product life cycle management

1. Core subject: This is the course, which is to be compulsorily studied by a student as a core requirement to complete the requirement of a programme in a said discipline of study.

2. Professional Elective: Elective relevant to chosen specialization/ branch

3. Internship / Professional Practice: To be carried out between 6^{th}& 7^{th} semester vacation or 7^{th}& 8^{th} semester vacation.

OPERATIONS RESEARCH
B.E, VIII Semester, Mechanical Engineering
[As per Choice Based Credit System (CBCS) scheme]

Course Code	**17ME81**	**CIE Marks**	**40**
Number of Lecture Hours/Week	**04**	**SEE Marks**	**60**
Total Number of Lecture Hours	**50(10 Hours per Module)**	**Exam Hours**	**03**

Credits – 04

Course Objectives:

1. **To enable the students to understand the scientific methods of providing various departments of an organization with a quantitative basis of decision making.**
2. **To enable the studentsto understand the importance of various tools and techniques in finding optimal solutions to problems involving limited resources in the form of Men, Materials and machinery.**

Module - 1

Introduction: Evolution of OR, Definitions of OR, Scope of OR, Applications of OR, Phases in OR study. Characteristics and limitations of OR, models used in OR, Linear Programming Problem (LPP), Generalized LPP- Formulation of problems as L.P.P. SolutionstoLPP by graphical method(Two Variables).

Module - 2

LPP: Simplex method, Canonical and Standard form of LP problem, slack, surplus and artificial variables, Solutions to LPP by Simplex method, Big-M Method and Two Phase Simplex Method, Degeneracy in LPP. Concept of Duality, writing Dual of given LPP. Solutions to L.P.P by Dual Simplex Method.

Module - 3

Transportation Problem: Formulation of transportation problem, types, initial basic feasible solution using North-West Corner rule, Vogel's Approximation method. Optimality in Transportation problem by Modified Distribution(MODI) method. Unbalanced T.P. Maximization T.P. Degeneracy in transportation problems, application of transportation problem.

Module - 4

Network analysis: Introduction, Construction of networks, Fulkerson's rule for numbering the nodes, AON and AOA diagrams; Critical path method to find the expected completion time of a project, determination of floats in networks, PERT networks, determining the probability of completing a project, predicting the completion time of project; Cost analysis in networks. Crashingofnetworks- Problems.
Queuing Theory: Queuing systems and their characteristics, Pure-birth and Pure-death models (only equations), Kendall & Lee's notation of Queuing, empirical queuing models – Numerical on M/M/1 and M/M/C Queuing models.

Module - 5

Game Theory: Definition, Pure Strategy problems, Saddle point, Max-Min and Min-Max criteria, Principle of Dominance, Solution of games with Saddle point. Mixed Strategy problems. Solution of 2X2 games by Arithmetic method, Solution of 2Xn m and mX2 games by graphical method. Formulation of games.

Sequencing: Basic assumptions, Johnson's algorithm, sequencing 'n' jobs on single machine using priority rules, sequencing using Johnson's rule-'n' jobs on 2 machines, 'n' jobs on 3 machines, 'n' jobs on 'm' machines. Sequencing of2 jobs on 'm' machines using graphical method.

Course outcomes:

1. **Understand the meaning, definitions, scope, need, phases and techniques of operations research.**
2. **Formulate as L.P.P and derive optimal solutions to linear programming problems by graphical method, Simplex method, Big-M method and Dual Simplex method.**
3. **Formulate as Transportation and Assignment problems and derive optimum solutions for transportation, Assignment and travelling salesman problems.**
4. **Solve problems on game theory for pure and mixed strategy under competitive environment.**
5. **Solve waiting line problems for M/M/1 and M/M/K queuing models.**
6. **Construct networkdiagrams and determine critical path, floats for deterministic and PERT networks including crashing of Networks.**
7. **Determine minimum processing times for sequencing of n jobs-2 machines, n jobs-3machines,n jobs-m machinesand 2 jobs-n machines using Johnson's algorithm.**

TEXT BOOKS:

1. Operations Research, P K Gupta and D S Hira,S. Chand and Company LTD. Publications, New Delhi – 2007
2. Operations Research, An Introduction, Seventh Edition, Hamdy A. Taha, PHI Private Limited, 2006.
3. Introduction to Operations Research, Lieberman/Nag/Basu, 9th Edition, McGraw Hill Education Pvt.Ltd.,

REFERENCE BOOKS:

1. Operations Research, Theory and Applications, Sixth Edition, J K Sharma, Trinity Press, Laxmi Publications Pvt.Ltd. 2016.
2. Operations Research, Paneerselvan, PHI
3. Operations Research, A M Natarajan, P Balasubramani, Pearson Education, 2005
4. Introduction to Operations Research, Hillier and Lieberman,8thEd., McGraw Hill

ADDITIVE MANUFACTURING
B.E, VIII Semester, Mechanical Engineering
[As per Choice Based Credit System (CBCS) scheme]

Course Code	**17ME82**	**CIE Marks**	**40**
Number of Lecture Hours/Week	**04**	**SEE Marks**	**60**
Total Number of Lecture Hours	**50(10 Hours per Module)**	**Exam Hours**	**03**

Credits – 04

Course Objectives:

1. **Understand the additive manufacturing process, polymerization and powder metallurgy process**
2. **Understand characterisation techniques in additive manufacturing.**
3. **Acquire knowledge on CNC and Automation.**

Module - 1

Introduction to Additive Manufacturing: Introduction to AM, AM evolution, Distinction between AM & CNC machining, Advantages of AM, **AM process chain:** Conceptualization, CAD, conversion to STL, Transfer to AM, STL file manipulation, Machine setup, build , removal and clean up, post processing.

Classification of AM processes: Liquid polymer system, Discrete particle system, Molten material systems and Solid sheet system.

Post processing of AM parts: Support material removal, surface texture improvement, accuracy improvement, aesthetic improvement, preparation for use as a pattern, property enhancements using non-thermal and thermal techniques.

Guidelines for process selection: Introduction, selection methods for a part, challenges of selection

AM Applications: Functional models, Pattern for investment and vacuum casting, Medical models, art models, Engineering analysis models, Rapid tooling, new materials development, Bi-metallic parts, Re-manufacturing. Application examples for Aerospace, defence, automobile, Bio-medical and general engineering industries.

Module - 2

System Drives and devices: Hydraulic and pneumatic motors and their features, Electrical motors AC/DC and their features

Actuators: Electrical Actuators; Solenoids, Relays, Diodes, Thyristors, andTriacs. Hydraulic and Pneumatic actuators, Design of Hydraulic and Pneumatic circuits, Piezoelectric actuators, Shape memory alloys.

Module - 3

POLYMERS & POWDER METALLURGY

Basic Concepts: Introduction to Polymers used for additive manufacturing: polyamide, PF resin, polyesters etc. Classification of polymers, Concept of functionality, Polydispersity and Molecular weight [MW], Molecular Weight Distribution [MWD] **Polymer Processing:** Methods of spinning for additive manufacturing: Wet spinning, Dry spinning. Biopolymers, Compatibility issues with polymers. Moulding and casting of polymers, Polymer processing techniques

General Concepts: Introduction and History of Powder Metallurgy (PM), Present and Future Trends of PM

Powder Production Techniques: Different Mechanical and Chemical methods, Atomisation of Powder, other emerging processes.

Characterization Techniques: Particle Size & Shape Distribution, Electron Microscopy of Powder, Interparticle Friction, Compression ability, Powder Structure, Chemical Characterization

Microstructure Control in Powder: Importance of Microstructure Study, Microstructures of Powder by Different techniques.

Powder Shaping: Particle Packing Modifications, Lubricants & Binders, Powder Compaction & Process Variables, Pressure & Density Distribution during Compaction, Isotactic Pressing, Injection Moulding, Powder Extrusion, Slip Casting, Tape Casting.
Sintering: Theory of Sintering, Sintering of Single & Mixed Phase Powder, Liquid Phase Sintering Modern Sintering Techniques, Physical & Mechanical Properties Evaluation, Structure-Property Correlation Study, Modern Sintering techniques, Defects Analysis of Sintered Components
Application of Powder Metallurgy: Filters, Tungsten Filaments, Self-Lubricating Bearings, Porous Materials, Biomaterials etc.

Module - 4

NANO MATERIALS & CHARACTERIZATION TECHNIQUES:
Introduction: Importance of Nano-technology, Emergence of Nanotechnology, Bottom-up and Top-down approaches, challenges in Nanotechnology
Nano-materials Synthesis and Processing: Methods for creating Nanostructures; Processes for producing ultrafine powders- Mechanical grinding; Wet Chemical Synthesis of Nano-materials- sol-gel process; Gas Phase synthesis of Nano-materials- Furnace, Flame assisted ultrasonic spray pyrolysis; Gas Condensation Processing (GPC), Chemical Vapour Condensation(CVC).

Optical Microscopy - principles, Imaging Modes, Applications, Limitations.
Scanning Electron Microscopy (SEM) - principles, Imaging Modes, Applications, Limitations. **Transmission Electron Microscopy (TEM) -** principles, Imaging Modes, Applications, Limitations.**X- Ray Diffraction (XRD) -** principles, Imaging Modes, Applications, Limitations.**Scanning Probe Microscopy (SPM) -** principles, Imaging Modes, Applications, Limitations.**Atomic Force Microscopy (AFM) -** basic principles, instrumentation, operational modes, Applications, Limitations. **Electron Probe Micro Analyzer (EPMA) -** Introduction, Sample preparation, Working procedure, Applications, Limitations.

Module - 5

MANUFACTURING CONTROL AND AUTOMATION
CNC technology - An overview: Introduction to NC/CNC/DNC machine tools, Classification of NC /CNC machine tools, Advantage, disadvantages of NC /CNC machine tools, Application of NC/CNC **Part programming:** CNC programming and introduction, Manual part programming: Basic (Drilling, milling, turning etc.), Special part programming, Advanced part programming, Computer aided part programming (APT)
Introduction: Automation in production system principles and strategies of automation, basic Elements of an automated system. Advanced Automation functions. Levels of Automations, introduction to automation productivity
Control Technologies in Automation: Industrial control system. Process industry vs discrete manufacturing industries. Continuous vs discrete control. Continuous process and its forms. Other control system components.

Course outcomes:

1. **Understand the different process of Additive Manufacturing. using Polymer, Powder and Nano materials manufacturing.**
2. **Analyse the different characterization techniques.**
3. **Describe the various NC, CNC machine programing and Automation techniques.**

TEXT BOOKS:

1. Chua Chee Kai, Leong Kah Fai, “Rapid Prototyping: Principles & Applications”, World Scientific, 2003.
2. G Odian Principles of Polymerization, Wiley Interscience John Wiley and Sons, 4th edition, 2005
3. Mark James Jackson, Microfabrication and Nanomanufacturing, CRC Press, 2005.
4. Powder Metallurgy Technology, Cambridge International Science Publishing, 2002.
5. P. C. Angelo and R. Subramanian: Powder Metallurgy- Science, Technology and Applications, PHI, New Delhi, 2008.
6. Mikell P Groover, Automation, Production Systems and Computer Integrated Manufacturing, 3rd Edition, Prentice Hall Inc., New Delhi, 2007.

REFERENCE BOOKS:

1. Wohler's Report 2000 - Terry Wohlers - Wohler's Association -2000
2. Computer Aided Manufacturing - P.N. Rao, N.K. Tewari and T.K. Kundra Tata McGraw Hill 1999
3. Ray F. Egerton , Physical Principles of Electron Microscopy: An Introduction to TEM, SEM, and AEM , Springer, 2005.
4. P. C. Angelo and R. Subramanian: Powder Metallurgy- Science, Technology and Applications, PHI, New Delhi, 2008.

CRYOGENICS

B.E, VIII Semester, Mechanical Engineering

[As per Choice Based Credit System (CBCS) scheme]

Course Code	**17ME831**	**CIE Marks**	**40**
Number of Lecture Hours/Week	**03**	**SEE Marks**	**60**
Total Number of Lecture Hours	**40(8 Hours per Module)**	**Exam Hours**	**03**

Credits – 03

Course Objectives:

1. **To understand cryogenic system and gas liquefaction system**
2. **To analyze gas cycle cryogenic refrigeration system**
3. **To Comprehend gas separation and gas purification system**
4. **To have detailed knowledge of vacuum technology, insulation, storage of cryogenic liquids**
5. **To study applications of cryogenics and to embark on cryogenic fluid**

Module - 1

Introduction to Cryogenic Systems:

Cryogenic propellants and its applications, liquid hydrogen, liquid nitrogen, and liquid Helium

The thermodynamically Ideal system Production of low temperatures – Joule Thompson Effect, Adiabatic expansion.

Gas Liquefaction Systems:

Liquefaction systems for Air Simple Linde –Hampson System, Claude System, Heylndt System, Dual pressure, Claude. Liquefaction cycle Kapitza System. Comparison of Liquefaction Cycles Liquefaction cycle for hydrogen, helium and Neon, Critical components of liquefactionsystems.

Module - 2

Gas Cycle Cryogenic Refrigeration Systems:

Classification of Cryo coolers, Stirling cycle Cryo – refrigerators, Ideal cycle – working principle. Schmidt's analysis of Stirling cycle, Various configurations of Stirling cycle refrigerators, Integral piston Stirlingcryo-cooler, Free displacer split type StirlingCryo coolers, Gifford McmahonCryo- refrigerator, Pulse tube refrigerator, Solvay cycle refrigerator, Vuillimier refrigerator, Cryogenic regenerators.

Module - 3

Gas Separation and Gas Purification Systems

Thermodynamic ideal separation system, Properties of mixtures, Principles of gas separation, Linde single column air separation. Linde double column air separation, Argon and Neon separation systems.

Ultra Low Temperature Cryo – Refrigerators

Magneto Caloric Refrigerator 3He-4He Dilution refrigerator. Pomeranchuk cooling. Measurement systems for low temperatures, Temperature measurement at low temperatures, Resistance thermometers, Thermocouples, Thermistors, Gas Thermometry. Liquid level sensors.

Module - 4

Vacuum Technology

Vacuum Technology: Fundamental principles. Production of high vacuum, Mechanical vacuum pumps, Diffusion pumps, Cryo-pumping, Measurement of high vacuum level. Cryogenic Insulation: Heat transfer due to conduction, Evacuated porous insulation Powder & Fibers Opacified powder insulation, Gas filled powders & Fibrous materials Multilayer super-insulation, Composite insulation

Module - 5

Cryogenic Fluid Storage And Transfer Systems

Design of cryogenic fluid storage vessels, Inner vessel, Outer Insulation, Suspension system, Fill and drain lines. Cryogenic fluid transfer, External pressurization, Self pressurization, Transfer pump.

Application of Cryogenic Systems

Cryogenic application for food preservation – Instant Quick Freezing techniques Super conductive devices, Cryogenic applications for space technology.

Application of cryogenic systems, super conducting devices, space technology, cryogenic in biology and medicine.

Course outcomes:

On completion of this subject students will be able to:

1. **To be able to understand the cryogenic system.**
2. **To have complete knowledge of cryogenic refrigeration system**
3. **To be able to design gas separation and gas purification system**
4. **To able to solve the problem in , insulation, storage of cryogenic liquids**
5. **To be able to apply cryogenic in various areas and to be able take up research in cryogenics**

TEXT BOOKS

1. Cryogenic Systems – R.F. Barron

2. Cryogenic Engineering – R.B. Scott – D.VanNostrand Company, 1959

REFERENCE BOOKS

1. Cryogenic Process Engineering – K.D. Timmerhaus and T.M. Flynn, Plenum Press, New York,1989

2. High Vacuum Technology – A. Guthree – New Age International Publication

3. Experimental Techniques in Low Temperature Physics – G.K. White – Osford University Press,

EXPERIMENTAL STRESS ANALYSIS

B.E, VIII Semester, Mechanical Engineering

[As per Choice Based Credit System (CBCS) scheme]

Course Code	**17ME832**	**CIE Marks**	**40**
Number of Lecture Hours/Week	**03**	**SEE Marks**	**60**
Total Number of Lecture Hours	**40(8 Hours per Module)**	**Exam Hours**	**03**

Credits – 03

Course Objectives:

4. **To understand the measurement of stain using electrical strain gauges.**
5. **To analyze stress and strains induced mechanical systems using electrical strain gauges.**
6. **To understand the photo elastic techniques to characterize the elastic behavior of solids.**
7. **To understand elastic behavior of solid bodies using coating techniques.**
8. **To apply the holography methods to measure stress and strains.**

Module - 1

Introduction: Definition of terms, Calibration, Standards, Dimension and units generalized measurement system. Basic concepts in dynamic measurements, system response, distortion,impedance matching, Analysis of experimental data, cause and types of experimental errors. General consideration in data analysis.

Electrical Resistance Strain Gages: Strain sensitivity in metallic alloys, Gage construction, adhesives and mounting techniques, Gage sensitivity and gage factor, Performance Characteristics, Environmental effects, Strain Gage circuits. Potentiometer, Wheatstone's bridges, Constant current circuits.

Module - 2

Strain Analysis Methods: Two element, three element rectangular and delta rosettes, Correction for transverse strain effects, Stress gage, Plane shear gage, Stress intensity factor gage.

Force, Torque and strain measurements: Mass balance measurement, Elastic element for force measurements, torque measurement.

Module - 3

Photoelasticity: Nature of light, Wave theory of light - optical interference, Stress optic law –effect of stressed model in plane and circuclarpolariscopes, Isoclinics&Isochromatics, Fringe order determination Fringe multiplication techniques, Calibration photoelastic model materials.

Two Dimensional Photoelasticity: Separation methods: Shear difference method,Analytical separation methods, Model to prototype scaling, Properties of 2D photoelastic model materials, Materials for 2D photoelasticity.

Module - 4

Three Dimensional Photo elasticity: Stress freezing method, Scattered lightphotoelasticity, Scattered light as an interior analyzer and polarizer, Scattered lightpolariscope and stress data Analyses.

Photoelastic (Birefringent) Coatings : Birefringence coating stresses, Effects ofcoating thickness: Reinforcing effects, Poission's Stress separation techniques: Oblique incidence.

Module - 5

Brittle Coatings: Coatings stresses, Crack patterns, Refrigeration techniques, Load relaxation techniques, Crack detection methods, Types of brittle coatings and its applications.

Moire Methods: Moire fringes produced by mechanical interference.Geometrical approach, Displacement field approach to Moire fringe analysis, Out of plane displacement measurements, Out of plane slope measurements.Applications and advantages

Course outcomes:

1. **Explain and the elastic behavior of solid bodies.**
2. **Describe stress strain analysis of mechanical systems using electrical resistance strain gauges.**
3. **Understand the experimental methods of determining stresses and strains induced.**
4. **Apply the coating techniques to determine the stresses and strains.**

TEXT BOOKS:

1. **"Experimental Stress Analysis",** Dally and Riley, McGraw Hill.
2. **"Experimental Stress Analysis".** Sadhu Singh, Khanna publisher.

REFERENCE BOOKS

1. **Experimental stress Analysis**, Srinath L.S tata Mc Graw Hill.
2. **"PhotoelasticityVol I and Vol II,** M.M.Frocht, John Wiley & sons.
3. **"Photo Elastic Stress Analysis",** Kuske, Albrecht & Robertson John Wiley & Sons.
4. **Motion Measurement and Stress Analysis Dave and Adams**
5. **Holman, "Experimental Methods for Engineers"** Tata McGraw Hill Companies, 7th Edition, New York, 2007

THEORY OF PLASTICITY

B.E, VIII Semester, Mechanical Engineering

[As per Choice Based Credit System (CBCS) scheme]

Course Code	**17ME833**	**CIE Marks**	**40**
Number of Lecture Hours/Week	**03**	**SEE Marks**	**60**
Total Number of Lecture Hours	**40(8 Hours per Module)**	**Exam Hours**	**03**

Credits – 03

Course Objectives:

- **To introduce the concepts of Plasticity and mechanism of plastic deformation in metals.**
- **To expose the students to elasto-plastic problems involving plastic deformation of beams and bars.**
- **To introduce the concepts of slip line field theory.**

Module - 1

Briefreviewf fundamentals of elasticity:Concept of stress, stress invariants, principal Stresses, octahedralnormalandshearstresses,sphericalanddeviatoricstress,stress transformation;concept of strain,engineeringandnaturalstrains, octahedralstrain,deviator and spherical strain tensors, strainrateandstrainrate tensor, cubical dilation, generalized Hooke's law, numerical problems.

Module - 2

Plastic Deformation of Metals: Crystalline structure in metals, mechanism of plastic deformation, factors affecting plastic deformation, strain hardening, recovery, recrystallization and grain growth, flow figures or Luder's cubes.
Yield Criteria: Introduction, yield or plasticity conditions, Von Mises and Tresca criterion, geometrical representation, yield surface, yield locus (two dimensional stress space), experimental evidence for yield criteria, problems.

Module - 3

Stress Strain Relations: Idealised stress-strain diagramsfor differentmaterialmodels, empirical equations,Levy-VonMises equation, Prandtl-Reuss andSaintVenant theory, experimental verification of Saint Venant's theory of plastic flow. Concept of plastic potential, maximum work hypothesis, mechanical work for deforming a plastic substance.

Module - 4

Bending of Beams:Stages ofplasticyielding, analysis of stresses, linear and nonlinear stress strain curve, problems.
Torsion of Bars: Introduction, plastic torsion of a circular bar, elastic perfectly plastic material, elastic work hardening of material, problems.

Module - 5

Slip Line Field Theory: Introduction, basic equations for incompressible two dimensional flows, continuity equations, stresses in conditions of plain strain, convention for slip lines, geometry of slip line field, properties of the slip lines, construction of slip line nets.

Course outcomes:

- **Understand stress, strain, deformations, relation between stress and strain and plastic deformation in solids.**
- **Understand plastic stress-strain relations and associated flow rules.**
- **Perform stress analysis in beams and bars including Material nonlinearity.**
- **Analyze the yielding of a material according to different yield theory for a given state of stress.**

- **Interpret the importance of plastic deformation of metals in engineering problems**

TEXT BOOKS:

1. "Theory of Plasticity", Chakraborty, 3rd Edition Elsevier.
2. "TheoryofPlasticityand Metal formingProcess"-Sadhu Singh, KhannaPublishers, Delhi.

REFERENCE BOOKS

1. "EngineeringPlasticity-TheoryandApplicationto Metal FormingProcess" -R.A.C. Slater, McMillan PressLtd.
2. "Basic Engineering Plasticity", DWA Rees, 1st Edition, Elsevier.
3. "Engineering Plasticity", W. Johnson and P. B. Mellor, Van NoStrand Co. Ltd 2000
4. Advanced Mechanics of solids, L. S. Srinath, Tata Mc. Graw Hill, 2009.

Green Manufacturing

B.E, VIII Semester, Mechanical Engineering

[As per Choice Based Credit System (CBCS) scheme]

Course Code	**17ME834**	**CIE Marks**	**40**
Number of Lecture Hours/Week	**03**	**SEE Marks**	**60**
Total Number of Lecture Hours	**40(8 Hours per Module)**	**Exam Hours**	**03**

Credits – 03

Course Objectives:

- **Acquire a broad understanding of sustainable manufacturing, green product and process**
- **Understand the analytical tools, techniques in green manufacturing**
- **Understand thestructures of sustainable manufacturing, environmental and management practice.**

Module - 1

Introduction to Green Manufacturing

Why Green Manufacturing, Motivations and Barriers to Green Manufacturing, Environmental Impact of Manufacturing, Strategies for Green Manufacturing.

The Social, Business, and Policy Environment for Green Manufacturing

Introduction, The Social Environment—Present Atmosphere and Challenges for Green Manufacturing, The Business Environment: Present Atmosphere and Challenges, The Policy Environment—Present Atmosphere and Challenges for Green Manufacturing.

Module - 2

Metrics for Green Manufacturing

Introduction, Overview of Currently Used Metrics, Overview of LCA Methodologies, Metrics Development Methodologies, Outlook and Research Needs.

Green Supply Chain

Motivation and Introduction, Definition, Issues in Green Supply Chains (GSC),Techniques/Methods of Green Supply Chain, Future of Green Supply Chain.

Module - 3

Closed-Loop Production Systems

Life Cycle of Production Systems, Economic and Ecological Benefits of Closed□Loop Systems, Machine Tools and Energy Consumption, LCA of Machine Tools, Process Parameter Optimization, Dry Machining and Minimum Quantity Lubrication, Remanufacturing, Reuse, Approaches for Sustainable Factory Design.

Semiconductor Manufacturing

Overview of Semiconductor Fabrication, Micro fabrication Processes, Facility Systems, Green Manufacturing in the Semiconductor Industry: Concepts and Challenges, Use-Phase Issues with Semiconductors, Example of Analysis of Semiconductor Manufacturing.

Module - 4

Environmental Implications of Nano-manufacturing

Introduction, Nano-manufacturing Technologies, Conventional Environmental Impactof Nano-manufacturing, Unconventional Environmental ImpactsofNano-manufacturing, Life Cycle Assessment (LCA) of Nanotechnologies.

Green Manufacturing Through Clean Energy Supply
Introduction, Clean Energy Technologies, Application Potential of Clean Energy Supplying Green Manufacturing

Module - 5

Packaging and the Supply Chain: A Look at Transportation
Introduction, Background, Recommended Method to Determine Opportunitiesfor Improved Pallet Utilization, Discussion.
Enabling Technologies for Assuring Green Manufacturing
Motivation, Process Monitoring System, Applying Sensor Flows in Decision Making:Automated Monitoring, Case Study.
Concluding Remarks and Observations about the Future
Introduction, Evolution of Manufacturing, Leveraging Manufacturing, Energy of Labor.

Course outcomes:

- **Understand the basic design concepts, methods, tools, the key technologies and the operation of sustainable green manufacturing.**
- **Apply the principles, techniques and methods to customize the learned generic concepts to meet the needs of a particular industry/enterprise.**
- **Identify the strategies for the purpose of satisfying a set of given sustainable green manufacturing requirements.**
- **Design the rules and processes to meet the market need and the green manufacturing requirements by selecting and evaluating suitable technical, managerial / project management and supply chain management scheme.**

PRODUCT LIFE CYCLE MANAGEMENT

B.E, VIII Semester, Mechanical Engineering

[As per Choice Based Credit System (CBCS) scheme]

Course Code	**17ME835**	**CIE Marks**	**40**
Number of Lecture Hours/Week	**03**	**SEE Marks**	**60**
Total Number of Lecture Hours	**40(8 Hours per Module)**	**Exam Hours**	**03**

Credits – 03

Course Objectives:

- **Familiarize with various strategies of PLM**
- **Understand the concept of product design and simulation.**
- **Develop New product development,product structure and supporting systems**
- **Interpret the technology forecasting and product innovation and development in business processes.**
- **Understand product building and Product Configuration.**

Module - 1

INTRODUCTION TO PLM AND PDM

Introduction to PLM,Need for PLM,opportunities and benefits of PLM, different views of PLM, components of PLM, phases of PLM, PLM feasibility study. PLM Strategies, strategy elements, its identification, selection and implementation. Product Data Management, implementation of PDM systems.

Module - 2

PRODUCT DESIGN

Engineering design, organization and decomposition in product design, product design process, methodical evolution in product design, concurrent engineering, design for 'X' and design central development model. Strategies for recovery at end of life, recycling, human factors in product design. Modelling and simulation in product

Module - 3

PRODUCT DEVELOPMENT

New Product Development, Structuring new product development, building decision support system, Estimating market opportunities for new product, new product financial control, implementing new product development, market entry decision, launching and tracking new product program. Concept of redesign of product.

Module - 4

TECHNOLOGY FORECASTING

Technological change, methods of technology forecasting, relevance trees, morphological methods, flow diagram and combining forecast of technologies Integration of technological product innovation and product development in business processes within enterprises, methods and tools in the innovation process according to the situation, methods and tools in the innovation process according to the situation

Module - 5

PRODUCT BUILDING AND STRUCTURES

Virtual product development tools for components, machines, and manufacturing plants: 3D CAD systems, digital mock-up, model building, model analysis, production (process) planning, and product data technology, Product structures: Variant management, product configuration, material master data, product description data, Data models, Life cycles of individual items, status of items.

Scheme of Examination:

Two question to be set from each module. Students have to answer five full questions, choosing at least one full question from each module.

Motivation, Process Monitoring System, Applying Sensor Flows in Decision Making:Automated Monitoring, Case Study.

Concluding Remarks and Observations about the Future

Introduction, Evolution of Manufacturing, Leveraging Manufacturing, Energy of Labor.

Course outcomes:

- **Explain the various strategies of PLM and Product Data Management**
- **Describe decomposition of product design and model simulation**
- **Apply the concept of New Product Development and its structuring.**
- **Analyze the technological forecasting and the tools in the innovation.**
- **Apply the virtual product development and model analysis**

Text Books:

1.Stark, John. *Product Lifecycle Management: Paradigm for 21st Century ProductRealisation*, Springer-Verlag, 2004. ISBN 1852338105

2.Fabio Giudice, Guido La Rosa, Product Design for the environment-A life cycle approach, Taylor & Francis 2006

Reference Books:

1.. SaaksvuoriAntti / ImmonenAnselmie, product Life Cycle Management Springer,Dreamtech,3-540-25731-4

2. Product Lifecycle Management, Michael Grieves, Tata McGraw Hill

Internship/ Professional Practice

Course	Code	Credits	L-T-P	Assessment		Exam Duration
				SEE	CIA	
Internship/ Professional Practice	17ME84	2	Industry Oriented	50	50	3 Hrs

Project Work, Phase II

Course	Code	Credits	L-T-P	Assessment		Exam Duration
				SEE	CIA	
Project Work, Phase II	17MEP85	6	0-6-0	100	100	3 Hrs

Seminar

Course	Code	Credits	L-T-P	Assessment		Exam Duration
				SEE	CIA	
Seminar	17MES86	1	0-4-0	100	-	-

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

SCHEME OF TEACHING AND EXAMINATION

RUBRICS FOR CONTINUOUS INTERNAL EVALUATION (CIE) FOR 40 MARKS

Particulars	Marks	Procedure
Internal Assessment Test	50+50= 100/4=25	Average of two best performances out of three internal assessments tests shall be considered.
Seminar/Presentation	05	Document for the same must be maintained
Subject Viva-Voce/ Oral Examination	05	Document for the same must be maintained
Assignment/ Quiz	05	Document for the same must be maintained
Note: Course Instructor may introduce/use any activity other than the above three activities to award 15marks.The activities used by the course instructor must be measurable and documented for inspection by VTU.		

Semester End Examination (SEE) conducted for 100marks and converted to 60 marks.

QUESTION PAPER PATTERN for SEE

Q.No.1 to7 PART -A	Marks
a	3 marks
b.	7 marks
c.	10 marks
Total (4/7) 4X20	80 marks
PART -B CASE -Compulsory	20 marks

Note: For III Semester SEE, 20% marks shall be allocated to application oriented questions based on practical Components given at the end of each course.

GUIDELINES FOR 6 WEEK PROJECT WORK

Semester	IV	CIE Marks	: 40
Course Code	18MBAPR407	SEE Marks	: 60
Teaching Hours / week (L:T:P)	0-0-12		
	Credits : 06		

OBJECTIVE

To expose the students to understand the working of the organization/company / industry and take up an in-depth study of an issue / problem in the area of specialization.

GENERAL GUIDELINES

- The project work shall be for a period of 6 weeks immediately after the completion of 3rd Semester Examinations but before the commencement of the 4th semester classes.
- The project work report shall be compulsory for all the students opting for all specializations.
- The University shall receive 2 copies of project reports prior to the commencement of the 4th semester examination. Copies of the project report should be sent to the concerned Regional Office with an intimation to the Registrar (Evaluation)
- By keeping the business trend in the present scenario, university has given an option to the students to select the research problem either from business organization or they can carry out the project on freelance basis subject to the approval of department committee.
- It is the total responsibility of the internal guide to monitor the freelance project.
- In case, business problem selected from a Company, no two students of an institute shall work on the same problem in the same organization.
- The student shall seek the guidance of the internal guide on a continuous basis, and the guide shall give a certificate to the effect that the candidate has worked satisfactorily under his/her guidance.
- On completion of the project work, student shall prepare a report with the following format.
- The Project report shall be prepared using word processor viz. MS Word with New Times Roman, 12 font size
- All the reports shall be printed in the A4 size 1 inch margin on all the sides.
- The report shall be hard bound facing sheet of royal blue color indicating the title of college and month & year of admission (spiral binding not permitted)

- A certificate by the guide, HOD and Head of the institution indicating the bonafide performance of the project by the student to be enclosed.
- An undertaking by the student to the effect that the work is independently carried out by him/her
- The certificate from the organization if applicable.
- Acknowledgement
- Executive Summary

Schedule to be followed before commencement of Project

Activity	Timeline	Remarks
• Identifying the organization • Problem identification	First week	Student individually identifies an organization OR identifies problem for his/her study, according to his/her interest.
• Problem statement • Research Design	Second Week	His/ Her interests are discussed with project guides. Discussion with Internal Guide to decide on suitable design for the research
Synopsis Preparation	Third week	Preparation of Synopsis* & formulating the objectives
Presentation of Synopsis	Fourth Week	The student will present the synopsis with the detailed execution plan to the Internal Guide and HOD who will review and may: a. Approve b. Approve with modification or c. Reject for fresh synopsis
Approval Status	Fifth & Sixth week	The approval status is submitted to HOD who will officially give concurrence for the execution of the Project

*Synopsis: It is a three page document or hard copy to be submitted to the HOD with the signatures of the Guide and the student.

Page 1	Title, Contact Address of student- with details of Internal and External Guide (if applicable)
Page 2	Short introduction with objectives and summary (300 words). Review of Articles / Literature about the topic with source of information
Page 3	Time Activity Chart

Schedule to be followed during Project work

Activity	Time Line	Remarks
Understanding Structure, Culture and functions of the organization /identifying of business problem from the Industry from the literature study	First week of Project	Student should understand products/services and the problems of the organization.
Preparation of Research design and Research instrument for data collection	2nd week of Project	Discussion with the guide for finalization of research design and instrument in his/her domain and present the same to the guide. (First Presentation)
Data collection	3rd week of Project	Date collected to be edited, coded, tabulated and presented to the guide for suggestions for analysis. (Second Presentation)
Analysis and finalization of report	4th & 5th week of project	Students must use appropriate and latest statistical tools and techniques for analyzing the data. (It is must to use of Statistical Package whose result should be shown in the report) (Third Presentation)
Submission of Report	6th week of Project	Final Report should be submitted to the University before one week of the commencement of theory examination

Evaluation:

- Internal evaluation will be done by the internal guide.
- External valuation shall be done by a faculty member of other institute drawn from VTU affiliated institute with minimum of 10 years experience.
- Viva-Voce / Presentation: A viva-voce examination shall be conducted at the respective Institution where a student is expected to give a presentation of his/ her work.
- The viva –voce examination will be conducted by the respective HOD / Senior Professor of the department and an expert drawn from the VTU affiliated institutes with minimum of 10 years of experience as appointed by the University.
- Project work carries 100 marks consisting of 40 marks for internal marks by the internal guide, average of 30 marks from both internal and external evaluation and 30 marks for viva-voce examination. . Minimum passing marks of the Project work is 50% in each of the components such as Internal Marks, report evaluation and viva-voce examination.
- Format of the project report shall be prepared using the word processor viz., MS Word, Times New Roman font sized 12, on a page layout of A4 size with 1inch margin all sides (1.5inch on left side) and 1.5 line spacing. The Project report shall not exceed 100 pages.

- Submission of Report: Students should submit the Project Report in electronic data form only, in PDF file (Un-editable Format) to the Institute. The Institute in turn shall submit all the CD's of their students along with a consolidated master list as per specialization containing USN, Name of the student, and Title of the Report to Registrar Evaluation) one week before the commencement of the Theory Examinations or as per notification given for this purpose.
- Plagiarism: Plagiarism is considered as academically fraudulent, and an offence against University academic discipline. The University considers plagiarism to be a major offence, and subject to the corrective procedures. It is compulsory for the student to get the plagiarism check done before submission of the project report. Plagiarism of up to 25% is allowed in the project work and report should consist 75% of original content/work.
- Publication of Research Findings: Students are expected to present their research findings in Seminars/ Conferences/ Technical/ Management Fests or publish their research work in Journals in association with their Internal Guide. Appropriate Weightage should be given to this in the internal evaluation as well as in the viva voce examination of the project report.

Contents of the Project Report

- Cover page
- Certificate from the Organization (scanned copy if applicable)
- Certificate from the guide, HOD and Head of the Institution (scanned copy) indicating bonafide performance of Project by the student
- Declaration by the student (scanned copy)
- Acknowledgement
- Table of contents
- List of tables and graphs
- Executive summary

Chapter 1: Introduction

Introduction, Industry profile and company profile: Promoters, vision, Mission & Quality Policy. Products / services profile areas of operation, infrastructure facilities, competitors' information, SWOT Analysis, Future growth and prospects and Financial Statement

Chapter 2: Conceptual background and Literature review

Theoretical background of the study, Literature review with research gap (with minimum 20 literature reviews).

Chapter 3: Research Design

Statement of the problem, Need for the study, Objectives, Scope of the study, Research methodology, Hypotheses, Limitations, Chapter scheme.

Chapter 4: Analysis and Interpretation

Analysis and interpretation of the data- collected with relevant tables and graphs. Results obtained by the using statistical tools must be included.

Chapter 5: Findings, Conclusion and Suggestions

Summary of findings, Conclusion and Suggestions / Recommendations

Bibliography

Annexure relevant to the project such as figures, graphs, photographs etc.,

Rubrics for Project Work (Common to core and Dual Specializations)

Particulars	Marks Allotted
A.Internal Assessment by the Guide- Based on three Presentations by Students	40
B.Report Evaluation by the Guide & External Examiner .Average of the marks awarded by the two Examiners shall be the final evaluation marks for the Dissertation.	30
C.Viva-Voce Examination to be conducted by the Guide and an External examiner from the Industry/ Institute (Joint Evaluation)	30
Total	**100**

Rubrics for Project Evaluation and Viva voce Examination

A.Internal Assessment by the Guide- Based on three Presentations by Students

SL No	Aspects	Marks Allotted
1	First Presentation	5
2	Second Presentation	5
3	Third Presentation	5
4	Introduction and Methodology	5
5	Industry and Company Profile	5
6	Theoretical background of study	5
7	Data analysis and interpretation	5
8	Summary of findings, suggestions and conclusion	5
	Total	**40**

B. Report Evaluation by the Guide & External Examiner. Average of the marks awarded by the two Examiners shall be the final evaluation marks for the Dissertation.

1	Introduction & Relevance of the project	5
2	Conceptual background and literature review	5
3	Research design	5
4	Analysis and interpretation	10
5	Summary of findings, suggestions and conclusion	5
	Total	**30**

C. Viva-Voce Examination to be conducted by the Guide and an External examiner from the Industry/ Institute (Joint Evaluation)

1	Presentation skills	5
2	Communication skills	5
3	Subject knowledge	5
4	Objectives of the study and Methodology	5
5	Analysis using statistical tools and statistical packages	5
6	Findings and appropriate suggestions	5
	Total	**30**

Formats for Project Report and Evaluation

- Format of Cover Page
- Format of certificate by College/Institution or from both
- Format of Declaration Page
- Format of Contents
- Format of List of Tables and Charts
- Format of Bibliography
- Format for Internal Evaluation, External Evaluation and Viva voce

BALLARI INSITUTE OF TECHNOLOGY AND MANGEMENT, BALLARI

DEPT. OF COMPUTER SCIENCE AND ENGINEERING

PROJECT WORK PHASE-2 (17CSP85) Batch List

SEM : VIII

Sl. No.	Batch No.	USN	Name Student	Guide Name	Title of the Project
1	B1	3BR17CS099	NIVEDHA S	Dr. R N Kulkarni	A Noval approach to disinfact the suface using disinfactant Robot.
2		3BR17CS088	MEETHA M		
3		3BR17CS087	MEDHA R		
4		3BR17CS131	SAI PAVAN N		
5	B2	3BR17CS091	MOHAMMED KHAISAR	Dr. R N Kulkarni	A Noval approach to distribute food items through UAV's.
6		3BR17CS135	SAIRAM KUDDIPUDI		
7		3BR17CS128	SACHIN BHATT		
8		3BR17CS104	NIKHIL P		
9	B3	3BR17CS147	V SHIVANARAYAN	Dr. R N Kulkarni	Smart Cradle System
10	B4	3BR16CS123	R.VIRINCHI KAUSHIK	Dr. B M Vidyavati	Brainy Road Accident Mitigation System
11		3BR17CS035	DHEEPAK		
12		3BR17CS151	SIRISHA		
13		3BR17CS178	MADHUMITA		
14	B5	3BR17CS081	MANASA D	Mr. Dadapeer	Andriod Fitness App
15	B6	3BR17CS053	KEERTHI J	Dr. Rajashree V Biradar	Soil Classification and Crop Prediction.
16		3BR17CS160	SUMA G		
17		3BR17CS061	KN AISHWARYA REDDY		
18		3BR17CS145	SHASHIKALA KP		
19	B7	3BR17CS076	M MOHAMMAD ABUZAR	Dr. Rajashree V Biradar	Online Courseware
20		3BR17CS077	M. SAI PREETHI		
21		3BR17CS106	PALLAVI. K		
22		3BR17CS086	M D NOMAN		
23	B8	3BR17CS027	CHAITHRA. V. N	Dr. Aradhana D	Crypotogrphic Techniques for Communication System
24		3BR17CS036	EVELYN ARPITHA JOSEPH		
25		3BR17CS043	GOURI POOJA H M		
26					
27	B9	3BR17CS060	K HEMALATHA	Dr. Aradhana D	Wearable Band for COVID Health Monitoring
28		3BR17CS021	BARRE ANUSHA		
29		3BR17CS002	AISHWARYA		
30		3BR17CS038	GALUJA PRAVEEN KUMAR		
31	B10	3BR17CS089	MEGHA HIREMATH	Dr. T R Muhibur Rehman	Design and Implemetation of Cloud Based Face and Speech Recognization System.
32		3BR17CS082	MANASA J S		
33		3BR17CS115	PRIYANKA PATIL		
34		3BR17CS134	JAVALKAR SAIRAM		

Sl. No.	Batch No.	USN	Name Student	Guide Name	Title of the Project
35	B11	3BR15CS095	N.NAGA SRAVAN DATTA	Dr. T R Muhibur Rehman	Accident Risk Prediction System.
36		3BR16CS116	PRASAD.G		
37		3BR16CS077	M.BHARATH SHIVA SAITEJA		
38		3BR16CS401	JEERA VINAYAKA		
39	B12	3BR17CS085	MATAM NIKITHA	Dr. Suresh Y	Driver Drowsiness Detection System
40		3BR17CS090	MOHAMMED FAYAZ		
41		3BR17CS122	RASHI KHANDELWAL		
42		3BR17CS127	S VINAYA		
43	B13	3BR17CS157	SRIRAKSHA.M	Dr. Suresh Y	Stock Market Prediction using Machine Learning Techiques
44		3BR17CS025	CHAITRA.C		
45		3BR17CS037	CHAITRA.G		
46		3BR17CS054	JAYATEERTHA.S		
47	B14	3BR17CS023	BHARGAVI N	P. Phaniram Prasad	Face Mask Recognization
48		3BR17CS096	NT DEEPTHI		
49		3BR17CS032	DEEPTHI REDDY K		
50		3BR17CS132	SAI SHIVANI D R		
51	B15	3BR17CS059	JYOTHSNA SAI K	P. Phaniram Prasad	ResQ-Pet
52		3BR17CS010	ANUSHA K		
53		3BR17CS001	ADIL FARHAAN M		
54		3BR17CS011	ASHISH R RATHOD		
55	B16	3BR17CS138	SATISH REDDY	Mr. C K Srinivas	A Smart Crop Yield Predictor using Andriod Application
56		3BR17CS130	SAI KALYAN Y		
57		3BR17CS074	LAVANYA M		
58		3BR17CS092	MONISHA L		
59	B17	3BR17CS046	H VADIRAJA	Mr. C K Srinivas	Blockchain Bidding System
60		3BR17CS070	KOLLI SAIKEERTHI		
61		3BR17CS012	ASHWINI T		
62		3BR17CS049	J ASHOK KUMAR REDDY		
63	B18	3BR18CS406	MALLIKARJUNA C M	Mr. A Venkateshwar	Smart Dust Bin Management System
64		3BR17CS164	SUPRIYA S		
65		3BR17CS188	KARTHIK M G		
66		3BR17CS166	SWATHI U		
67	B19	3BR16CS109	PAVAN KUMAR.P	Mr. A Venkateshwar	Hand Gesture Recognition System for Virtual mouse HCI.
68		3BR17CS064	KALYAN KUMAR.P		
69		3BR17CS044	GOUTHAM.U		
70		3BR16CS080	MAHESHWARI PRAKASH B		
71	B20	3BR17CS167	SWETHA M	Mrs. Anita Patil	Virtual Environment for Labs and Projects
72		3BR17CS165	SUSHMITHA		
73		3BR17CS171	TEJASHWINI G		
74		3BR17CS900	Md. Hashir		
75	B21	3BR17CS109	PIYUSH	Mrs. Anita Patil	Classification of Retinal Image for Early Detection of Diabetic Rentinopathy Using Deep Learning
76		3BR17CS110	POOJITHA T		
77		3BR17CS079	M.HEMALATHA		
78		3BR17CS003	AJAY KUMAR		

Sl. No.	Batch No.	USN	Name Student	Guide Name	Title of the Project
79	B22	3BR17CS163	SUMANTH H	Mrs. Pratibha Mishra	Save-Life Helpline System
80		3BR17CS168	T.L.MOHAMMED MOHSIN		
81		3BR17CS169	TANSEER S M		
82		3BR17CS174	THARUN K		
83	B23	3BR17CS146	SHEETHAL.V.S	Mrs. Pratibha Mishra	Self-Diagnosis With Advanced Hospital Management System
84		3BR18CS413	TASNEEM FATHIMA M		
85		3BR17CS148	SINDHU		
86		3BR17CS149	SINDHU.M.P		
87	B24	3BR17CS006	ANE CHANDANA	Mr. Sudhakar Avareddy	Leaf Disease Detection Using Machine Learning Technique
88		3BR17CS009	ANUSHA G M		
89		3BR17CS015	B.DHARANI		
90		3BR17CS158	SRUSHTI RAMESH G		
91	B25	3BR17CS016	B RAMA DEVI	Mr. Sudhakar Avareddy	Pesticides Information System.
92		3BR17CS102	P KIRAN MAI		
93		3BR17CS121	RANJITHA		
94		3BR17CS126	S THARANI		
95	B26	3BR17CS067	K.JYOTHI	Mr. Jagadeesh R M	Breast Cancer Detection using Machine Learning
96		3BR17CS063	K R VIJAY KUMAR		
97		3BR17CS004	AKASH S TELKAR		
98		3BR17CS058	JYOTHI LAXMI		
99	B27	3BR17CS026	C NEHA THABASUM	Mr. Jagadeesh R M	Voice Based E-mail for Blind People
100		3BR17CS029	CHINMAYI D		
101		3BR17CS101	P ANUSHA		
102		3BR17CS124	RUKSAR BEGAM		
103	B28	3BR17CS055	JHANSI M	Mr. Usman K	Object Detection and Tracking Using Open CV.
104		3BR16CS002	A. RAMALAKSHMI		
105		3BR16CS006	ANITHA. A		
106	B29	3BR17CS142	SHAIK MASHUD BASHA	Mr. Usman K	Detection of Traffic Violations and Vehicle Tracking System by using Andriod.
107		3BR18CS400	AKHIL		
108		3BR18CS403	BADAL SINGH		
109		3BR18CS414	UMAR FAROOQ		
110	B30	3BR16CS066	KUPPALA SRIKANTH	Mr. Virupaksha Gouda R	Age Detection with OpenCV and Deep Learning.
111		3BR16CS037	G SHASHANK REDDY		
112		3BR16CS043	GOOLLA RENUKA		
113		3BR17CS410	MEDHA R G		
114	B31	3BR18CS409	NAZNEEN	Mr. Virupaksha Gouda R	Walmart Sales Prediction
115		3BR18CS410	PRIYANKA B		
116		3BR18CS401	AMARUNNISA SM		
117		3BR18CS408	NAVEEN KUMAR B		
118	B32	3BR18CS404	CHANDAN N	Mr. Hayath T M	Rainfall Prediction Using RNN, SVM.
119		3BR18CS402	ANUSHA J		
120		3BR18CS411	SHERIN SHAIK		
121		3BR18CS412	SHIRISHA J		

Sl. No.	Batch No.	USN	Name Student	Guide Name	Title of the Project
122	B33	3BR17CS155	SRIKANTH DK	Mr. Hayath T M	An Effective Phising Website Detection.
123		3BR17CS153	SNEHAJA CHUNDURI		
124		3BR17CS170	TEJASHWINI PATIL		
125		3BR17CS150	SINDHUJA SHABADI		
126	B34	3BR16CS132	S SAMHITA	Mr. Sridhar S K	COVID Detection Using X-Ray Images
127		3BR15CS182	WAHIDA TARANNUM		
128		3BR16CS024	RAMYA C		
129		3BR16CS108	P LIKITHA		
130	B35	3BR17CS137	SAMREEN TAYABBA G	Mr. Sridhar S K	Encripted Data Management with Duplication.
131		3BR17CS140	SHAHEEN M N		
132		3BR17CS161	SUMA LAVANYA		
133		3BR17CS159	SULTANA BEGUM		
134	B36	3BR17CS176	USHA SHARMA. K. M	Mr. Dadapeer	Voice Controlled Electronic Notice Board using Bluetooth Module Based on IoT
135		3BR17CS175	U. TEJASHWARI		
136		3BR17CS093	MUKTHI. G		
137	B37	3BR16CS124	RAJATHASREE G	Mr. Shaffiulla	Frustration Detection on Review Using Machine Learning.
138		3BR17CS136	SAMEENA YASMEEN		
139		3BR16CS163	TOUFIYA FATHIMA		
140		3BR17CS069	KEERTHANA S		
141	B38	3BR17CS112	PRASANNA PRABHU N	Mr. Giresh Kumar .D	COVID-19 Indoor Safty Monitoring with Human Identification.
142		3BR17CS111	PRAFUL KUMAR		
143		3BR17CS072	KOTRESH VALI		
144		3BR17CS084	MANIKANTA REDDY M		
145	B39	3BR17CS042	GANESH T	Mrs. Swethashree A	Speech Emotion Recognition
146		3BR17CS056	J ARAVIND		
147		3BR17CS078	M VENKATRATNA		
148		3BR17CS117	R GAYATHRI		
149	B40	3BR17CS031	DABBARA PRAVEEN	Mrs. Swati D V	Intelligent video Survelillance with deep Learning
150		3BR17CS034	DIVYA BHARATHI. B		
151		3BR17CS040	GAEKWAD NIKITHA		
152		3BR17CS041	GANESH P		
153	B41	3BR17CS039	G SAHANA	Mrs. Tejaswini S G	Hand Written Character Recognization using NN.
154		3BR17CS018	B SAI SHILPA		
155		3BR17CS020	BANDI MONEESHA		
156		3BR17CS028	CHANNABASAVA H		
157	B42	3BR17CS129	SAHANA SAI B	Mr. Kiran Muddareddy A	Social Distance using AI and Deep Learning
158		3BR17CS120	R. SRAVANI		
159		3BR17CS116	PRIYANKA T		
160		3BR17CS113	PREETHI T		
161	B43	3BR17CS014	AYESHA.P	Mr. Hari Krishna H	Fack News Detection Using Machine Learning.
162		3BR17CS013	AVULA ROOPA		
163		3BR17CS019	BALACHANDRA SHEKAR		
164		3BR17CS017	B S MANJUNATH		

Sl. No.	Batch No.	USN	Name Student	Guide Name	Title of the Project
165	B44	3BR17CS123	REXINA D	Mr. Azar Baig M	Email Spam Detection
166		3BR17CS095	N ANJANA		
167		3BR17CS098	NEELAGAL GNANESWARI		
168		3BR17CS100	P AISHWARYA		
169	B45	3BR17CS005	AKHILA K	Mr. Giresh Kumar .D	Test Recognization from Slient Speech.
170		3BR17CS047	HARSHITHA REDDY RV		
171		3BR17CS068	KAVYA		
172		3BR17CS097	NANDITHA.A		
173	B46	3BR17CS103	MANJUNATHA P	Mr. Srisaila Nath	Congestion control for Medical emegency V2V Communication using IoT.
174		3BR17CS080	MOHAMMED JUNEED		
175		3BR17CS114	PREM KUMAR J		
176		3BR17CS105	PALEM RITHISHBRAHMA		
177	B47	3BR17CS162	SUMANTH CB	Ms. Aishwarya R. Nayaka	Helping Hand
178		3BR17CS186	YAMINI VG		
179		3BR17CS152	SK GOUSIYA		
180		3BR17CS143	SHAIK SAMRIN BANU		
181	B48	3BR17CS184	VIDHYA	Mrs. Chandini	Stress Recognition using Face images and Face Landmarks
182		3BR17CS173	THANMAI V		
183		3BR17CS144	M SHALINI		
184		3BR17CS185	VISHNU C GUDIMANI		
185	B49	3BR17CS172	THALURIJHANSI	Mr. Sreenivasa M	Placement Prediction System
186		3BR17CS057	JYOTHI		
187		3BR17CS083	MANASA JAWALI		
188		3BR17CS024	BHAVANA.M		
189	B50	3BR17CS181	VAISHNAVI J	Mrs. Shenaz Begum	Credit Card Fraud Detection
190		3BR17CS182	VARSHA B		
191		3BR17CS177	USHA V BALLOLLI		
192		3BR17CS156	SRINIVAS VB		
193	B51	3BR16CS149	SRUSHTI. H. N	Mr. Shaffiulla	Private Scocial Network
194		3BR17CS400	CHETAN KANNUR		
		3BR16CS404	SRINIVAS M		
195	B52	3BR14IS011	HEENA THAISEEN	P. Phaniram Prasad	Assisted Communication for BLIND, DEAF and DUMB people.

Project Co-Ordinator's

1. Prof. Phanoram Prasad

2. Prof. C K Srinivas

3. Prof. Sreenivasa M

Singature of HOD

Dr. R N Kulkarni

Ballari Institute of Technology and Management,Ballari

Department of Electronics and Communication Engineering

Final Year Project Batch List and Guide Allotment for the ACY 2020-21

Batch No	Name of the student	USN	Name of the Guide	Title of the Project
1	Ediga Prasanth Gowd	3BR17EC034	Dr U Eranna	Smart child rescue system from borewell using robot
	Devalla Ajith	3BR17EC029		
	H.Gurulingareddy	3BR17EC047		
	Havaligi Saran Kumar Reddy	3BR17EC051		
2	Deepti k gutti	3BR17EC027	Mr.Raymond	DAM SURVEILLANCE WITH PREDICTIVE CAUTION AND DATA STANDARDS FOR PRECISION IRRIGATION SYSTEM
	Dharani k	3BR17EC030		
	G Bhavani	3BR17EC037		
	G Sunil	3BR17EC041		
3	U. JAGADESHWARI	3BR17EC168	Mrs.Renuka Sagar	DESIGN AND FABRICATION PROCESS FOR PLASTIC MANAGEMENT BY RECYLING HOUSEHOLD WASTE
	KIRAN KUMAR H GOUDAR	3BR17EC076		
	JYOTHI REDDY	3BR17EC015		
	B. ATEYA	3BR17EC013		
4	LAKSHMI LAHARI S	3BR17EC079	Mr. Shivakuamr K S	Vehicle Theft Notification And Remote Engine Locking
	Likitha. V	3BR17EC080		
	Sai keerthi.M	3BR17EC140		
	Tanisha. P	3BR17EC162		
5	Mangalagouri	3BR17EC090	Mr.Premachand D R	Cryptography Model for end to end encription
	S M Jayashree	3BR17EC133		
	Kota VijayKumarReddy	3BR17EC077		
	Palagiri Sravani Reddy	3BR17EC118		
6	Sindhu S	3BR17EC154	Mr.Sagar T V	Device Automation and Voice Transmission Using Light Fidelity (Li-Fi) Technology
	Uma Singh	3BR17EC169		
	Sumanth M B	3BR17EC156		
	Zaheeer Abbas	3BR17EC183		
7	Basavarajeshwari B M	3BR17EC190	Ashwatha Narayana	Smart Health Care System for Monitoring Patients
	Amulya B L	3BR17EC004		
	Harshita H M	3BR17EC049		
	Divya M	3BR17EC032		
8	M Shreya	3BR17EC085	Miss. Sowbhagya	Lung Cancer DiagnosisWith classification By DIP Classifier SVM
	Manjula	3BR17EC096		
	Rohini k	3BR17EC130		
	Ramya Kulkarni	3BR17EC126		
9	Dadapeer p	3BR17EC191	Dr V C Patil	COVID-ROBOT (COBOT) Analyser
	Vaishnavi gupta.P	3BR17EC173		
	Shaik Mubeen Taj	3BR17EC185		
	Shoaib ruhan	3BR17EC151		
10	Keerthana.T	3BR17EC074	Mr.Prabhakar	LPG Gas monitoring & automatic booking with alert system
	Kavitha.G	3BR17EC073		
	Kapu Sumanth Kumar Reddy	3BR17EC071		
11	Aparna.J	3BR17EC009	Manjunath G	Study & Analysis of antenna miniaturaization Technique using Meta materials
	AP Manasa	3BR17EC001		
	K Vasudha	3BR17EC067		
	B Madhu Shekar	3BR17EC016		
12	Divya Gani	3BR17EC031	Mr. Raymond I	Critical condition intimation device
	Gayathri G	3BR17EC045		
	Shravani b	3BR17EC152		
	Teja K B	3BR17EC164		
13	Gadela Suneha	3BR17EC042	Dr.Sadyojatha	Convolution neutral networks for brain tumour segmentation
	Anushri	3BR17EC008		
	Sushma S	3BR17EC160		
	Sushma M	3BR17EC159		
14	Ashwini R Sangam	3BR17EC012	Manjunath G	Quantitative analysis of antenna geometry and substrate modifications for compact wideband antenna design
	Impana D M	3BR17EC055		
	D G Sindhu	3BR17EC025		
15	TIRUMALESH N K	3BR17EC166	Mr.Ashwatha Narayana	An intelligent, secure and smart home automation
	Tuggali Aruna	3BR17EC167		
	Shirisha B S	3BR17EC148		
	SUNAGARA RAKESHA	3BR17EC157		

Ballari Institute of Technology and Management,Ballari

Department of Electronics and Communication Engineering

Final Year Project Batch List and Guide Allotment for the ACY 2020-21

Batch No	Name of the student	USN	Name of the Guide	Title of the Project
16	Mohammed Muqthiar Ahamed	3BR17EC103	Mr.Mallikarjuna	Alcohol Sensing & Ignition Control System
	Muhammad Riza K	3BR17EC108		
	ANUSHA.N	3BR17EC006		
	Mohammed Baaqir Basith R	3BR17EC102		
17	Gadikan Jyothi	3BR17EC043	Dr U Eranna	Footstep Power Generation Using Piezoelectric Sensor
	Hastavaram Yasaswini	3BR17EC050		
	Gurrapu Niharika	3BR17EC046		
	Jayasurya K	3BR17EC057		
18	RAJESHWARI PRIYADARSHINI	3BR17EC124	Dr.Naseeruddin	Solar powered Mobile Cold Storage Monitoring System
	SANA SUMAIYA	3BR17EC141		
	DEEPTHI NS	3BR17EC028		
	Mohammed Owais K	3BR17EC104		
19	REVAN KUMAR INDI	3BR17EC128	Mrs.Nilam	SMART Bridge
	MEGHA SK	3BR17EC099		
	MEDA LIKHITHA	3BR17EC098		
	MANISH D	3BR17EC091		
20	Ravi Teja Kuruba	3BR17EC127	Mr.Hemanth Kumar K	Regional paddy leaves classification using image processing
	Mohammad Thoseef D	3BR17EC101		
	Md Khaja Owesh K	3BR17EC097		
	Mantha Rathan Sai	3BR17EC095		
21	RAHIMUNNISA NAHEEN K	3BR17EC066	Mrs.Nilam	Pothole detecting system
	S ANEESA BEGUM	3BR17EC131		
	Fouzia Nikhath	3BR17EC132		
22	Pavan A	3BR18EC415	Dr. Naseeruddin	Savvy Vehicle Parking Management
	Sushma singh B	3BR18EC419		
	Shilpa	3BR17EC147		
	Vandana DC	3BR17EC175		
23	Jonnalaggada sowmya	3BR17EC058	Mr. William Thomas	Wireless controlled multipurpose agricultural robot
	Heraimatam shruthi	3BR17EC053		
	Chalapala vandana	3BR17EC024		
	Anusha.m	3BR17EC005		
24	Neha Raghavendra	3BR17EC113	Mrs.Renuka Sagar	Hands-free automated body temperature monitoring system using IOT
	W Sanjana	3BR17EC179		
	Shivashankargouda L patil	3BR17EC149		
	V Shyam Babu	3BR17EC170		
25	Manish Kumar Singh	3BR17EC092	Mr.D R Premachand	Implementation of LSB substitution method for Image Steganography
	Sandeep Singh	3BR17EC142		
	Kowshik M	3BR17EC078		
	Manoj K N	3BR17EC094		
26	DAMMURU VIJAYA RAGHAVENDRA	3BR17EC026	Mr.Sagar T V	IoT based home automation
	P. AKSHAY RAGHOTHAM	3BR17EC117		
	JUNAID SALMAN	3BR17EC060		
	DUDEKULU FARHANA BEGUM	3BR17EC033		
27	Samyuktha.S	3BR17EC135	Mrs. Swetha N	Voice controlled robotic car using Aurdino
	S.Thejashvini	3BR17EC138		
	Vennela.V	3BR17EC177		
	M.Sinduja	3BR17EC087		
28	Belaganti Sai Swetha	3BR17EC017	Dr Abdul Latheef	Ingenious Buy
	Shaik Ananashath	3BR17EC144		
	Kappadi Rachana	3BR17EC070		
	V. Meghana Padmashali	3BR17EC100		
29	J Dilshad Banu	3BR17EC056	Dr Abdul Latheef	IoT based automatic field Shielding
	K. Akhila	3BR17EC061		
	J Archana	3BR17EC011		
	Amara Naaz	3BR17EC003		
30	Mude Prathap Naik	3BR17EC107	Mr.Fareduddin	Compact Ultra-Wideband Antenna for Several Wireless Communication Applications
	M.Sai Priya	3BR17EC084		
	Nandini.P	3BR17EC109		
	S Sohel	3BR17EC137		
31	Girija K	3BR18EC408	Mr.Prabhakar	Iot based encryption and decryption of image transmission using LI-FI
	Shailaja C	3BR18EC417		
	Bindu Madhavi S	3BR18EC403		
	Madhura A	3BR18EC411		
32	Manjunatha N	3BR18EC413	Mr.Srikanth K M	Smart Helmet System Using Arduino
	Lingesh Kumar K	3BR18EC410		
	K S Ganesh	3BR18EC406		
	Mailara K	3BR18EC412		

Ballari Institute of Technology and Management,Ballari

Department of Electronics and Communication Engineering

Final Year Project Batch List and Guide Allotment for the ACY 2020-21

Batch No	Name of the student	USN	Name of the Guide	Title of the Project
33	C Mukunda	3BR17EC022	Dr Sadyojatha	DTMF controlled robot without microcontroller
	C Jayanth	3BR17EC020		
	Ganesh D M	3BR17EC044		
	Ajith P	3BR17EC002		
34	MANASA. K	3BR17EC089	Mr.Vishnu kanth. K	Intelligence irregation Water controlling System with IoT Technology & Soil moisture Sensor
	PRIYANKA. B	3BR17EC122		
	PUNAGANDLA KARTHEEK	3BR17EC123		
	NETYAM BHARATH KUMAR	3BR17EC114		
35	Bhargav.M	3BR17EC018	Mr.Vinaykumar J	Prediction & Analysis of Diabetes and Blood Pressure in Patients Using IOT Devices
	Hima vamshi	3BR17EC054		
	Challa sai prakash	3BR17EC023		
36	NAVEEN G R	3BR18EC414	Mr.Ulagnathan J	IOT BASED COVID PATIENT HEALTH MONITORING IN QUARANTINE
	Goudara Pavan Kumar	3BR18EC409		
	SUDHAKAR S N	3BR18EC418		
	DAVINTI BHARATH REDDY	3BR18EC404		
37	Poornima Heroor	3BR17EC120	Mrs.Nayana	Implementation of LBIST architecture with compactor for 4X4 multiplexer
	Nishantha A R	3BR17EC116		
	M Shruthi	3BR17EC086		
	S Hepzibha	3BR17EC132		
38	Boya Mounika	3BR17EC019	Mr.William Thomas	Design and implementation of automated blood bank using embedded system design based on IOT/GSM
	Cm Prashanti	3BR17EC021		
	K.N.Bhavya	3BR17EC064		
	H M Meghana	3BR17EC048		
39	AISHWARYA SINGH. D	3BR18EC400	Mrs. Prathiba S	Smart Safety Monitoring System for Seweage workers with two way Communication
	GAYATHRI. V	3BR18EC407		
	DEENAVANI. U	3BR18EC405		
	RAJESHWARI. V	3BR18EC416		
40	Divya	3BR17EC187	Mr.Ambrayya	Smart Shopping trally using RFID over IoT
	B Vani	3BR17EC176		
	Pooja H	3BR17EC189		
	v shreya patil	3BR17EC171		
41	Kalyan T	3BR17EC069	Mr. Ranjit Pyati	IoT Based Early Flood Detection and Avoidance System
	Karthik K	3BR17EC072		
	TIRUMALA REDDY B H	3BR17EC165		
42	Vimala P	3BR17EC178	Mrs.Shilpa K R	Distribution Transformer over heating detection with solar power cooling Systems
	Smita Jagadal	3BR17EC155		
	Balamma	3BR18EC402		
	Swathi B	3BR17EC161		
43	SAMREEN TAJ	3BR17EC421	Mr.Srikanth	Controlled Loop Based Motor Speed Management Using IOT
	ARIFA BANU	3BR17EC404		
	Mohammed Gouse B	3BR17EC411		
	Priyanka Y B	3BR16EC102		
44	PAVITHRA U	3BR17EC119	Mrs.Simontiny Roy	IOT based monitoring system using Aurdino uno board
	M Indu	3BR17EC081		
	Bhojaraju moka	3BR17EC106		
	S.Shilpa Sree	3BR17EC136		
45	MOHAMMED SHOAIB SHAIKH	3BR17EC105	Mr.Mallikarjuna	Drowsiness Detection System
	G B SUNDEEP KUMAR	3BR17EC036		
	Kiran B S	3BR17EC188		
46	Yerragunta pavan kumar	3BR17EC181	Dr V C Patil	Hand gesture recognization Using Matlab
	Yogesh C	3BR17EC182		
	Sai Shabreesh	3BR17EC174		
	Sharana basappa	3BR17EC146		
47	Deepak Sharma K M	3BR16EC029	Mr.Vishnu Kanth Karwa	Priority Management System of Path Clearence for emergency vehicle using IoT
	M Narasimha	3BR16EC069		
	Sunil Choudary R	3BR16EC137		
	Sai Bharath M V	3BR16EC119		

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Department of Electronics and Communication Engineering

Final Year Project Batch List and Guide Allotment for the ACY 2020-21

Batch No	Name of the student	USN	Name of the Guide	Title of the Project
48	Nirmala. M	3BR15EC058	Mr.Hemanth Kumar K	Classification of leaf disease using Image Processing
	Pallavi	3BR17EC413		
	Pavitra. K	3BR15EC079		
	K.Tarun govind	3BR17EC409		
49	K.sowmya	3BR16EC051	Mrs.Swetha N	Early detection of kidney disease using machine learning based modeling
	Akash T M	3BR16EC005		
	Masineni Sri Harsha	3BR16EC072		
	N Praveen	3BR14EC087		
50	Rajashekar Desai	3BR17EC419	Mr.Shivakuamr K S	IoT in the development of Smart Cities and auto complaint generation
	Prabhakara P	3BR17EC416		
	Bharat kumar C L	3BR17EC408		
	Sharanappa	3BR17EC424		

Signature of Project Coordinators **HOD ECE**

BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT, BALLARI

DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING

LIST OF PROJECTS FOR A.Y:2020-2021

Project Co-Ordinator: Prof. Y. Kamal Kishore

Batch No	USN	Name Of The Student	Guide Name	TITLE OF PROJECT
1	M Hemalatha	3BR17EE047	Dr. B. S. Khened	GSM based industry protection system.
	K shilpa	3BR17EE041		
	Monika D	3BR17EE057		
	jayalakshmi	3BR17EE034		
2	Shakeel Ahmed	3BR17EE054	Dr. Raghavendra P	Micro inverter for solar roof top system
	Mohammed Haaris	3BR17EE052		
	Nikhil	3BR17EE065		
	uzaif	3BR17EE055		
3	Ranjitha c v	3BR17EE077	Dr. Raghavendra P	Railway track security by GSM modem
	Rashmi H N	3BR17EE078		
	Roopagorpade	3BR17EE083		
	Simran	3BR17EE094		
4	Suheenanaz	3BR17EE099	Dr. Sharana Reddy	Solar PV powered irrigation system using DC Pump
	Suleman	3BR17EE0101		
	Vigneshwadiyar	3BR17EE0117		
	Umar farooq	3BR17EE109		
5	Renuka S M	3BR17EE080	Dr. Sharana Reddy	Modeling and performance analysis of solar PV module
	Revathi D	3BR17EE081		
	Rekha	3BR17EE079		
	Srilaxmi	3BR17EE095		
6	M chaitaynashivakumar	3BR14EE050	Dr. Abdul Khadar.A	SCADA based power control system using microcontroller
	Rahul jadhav L	3BR16EE065		
	Vadiyarsiddeshwara	3BR16EE096		
	Veeresha G	3BR16EE098		
7	Shaguftha begum	3BR17EE088	Dr. Abdul Khadar.A	Power generation from waste heat using thermoelectric generator.
	Sheikh Afreen	3BR17EE089		
	Sharath M S	3BR17EE090		
	Manojkumar N S	3BR17EE050		
8	Zeenathafrooz	3BR17EE123	Prof. Arathi P B	IOT based smart waste management for smart city using ARDUINO with ESP 8266
	UmmesalmaShaikh	3BR17EE110		
	Abdulla	3BR18EE400		
	K R kavya	3BR17EE040		
9	Prakurthi P Z G	3BR17EE068	Prof. Arathi P B	Relay Co-ordination model for power system protection
	Prajakthamallappapujari	3BR17EE067		
	Mohammed Mohseen	3BR17EE053		
10	Thippamma A	3BR17EE108	Prof. Y Kamal Kishore	IOT based transmission line monitoring system using RASPBERRY PI
	Roohinaaz V	3BR17EE082		
	V Prashanti	3BR16EE095		
	M Nagamonica	3BR16EE037		
11	Prashanti.M	3BR15EE038	Prof. Y Kamal Kishore	Smart irrigation system using IOT
	Amruthapujar	3BR16EE006		
	R Rupashree	3BR18EE416		
	SunithaMatam	3BR18EE419		
12	Deepikasolanki	3BR17EE023	Prof. Shridhar S M	3 D printing using ARDUINO
	Deepthi	3BR17EE024		
	G Divya	3BR17EE026		
	G K saiHarshithaJyothi	3BR17EE027		

13	Akshita B	3BR17EE006	Prof. Shridhar S M	Password based distribution panel and circuit breaker operation for the safety of line man during maintenance work.
	Amrutha.K	3BR17EE037		
	Archana.H	3BR17EE008		
	Sahana P M	3BR16EE075		
14	Jyothi .P	3BR17EE036	Prof. Md Anwar	Detection of power grid synchronization failure sensing frequency and voltage beyond acceptable range.
	Lavanya K	3BR17EE046		
	Chippagirigunasandhya	3BR17EE019		
15	Naveen kumarrathod.R	3BR17EE061	Prof. Sujatha D	Fire fighting robot
	Naveen kumar U	3BR17EE062		
	Rahul.U.bulla	3BR17EE073		
	Prithviraj.T	3BR17EE071		
16	Ganesh K	3BR17EE029	Prof. Sujatha D	IOT based underground cable fault detection
	Mahesh	3BR17EE049		
	Amir ali	3BR17EE002		
17	A Ayesha siddiqua	3BR17EE001	Prof. FarzanaBegum.K	Women safety device with GPS tracking and alert
	Amruthareddy	3BR17EE007		
	Ashwinikuppasagoudar	3BR17EE009		
	Chandana	3BR17EE017		
18	Madhusudhan .M	3BR16EE417	Prof. Parvathi	Desalination of Sea water using hybrid power source
	Gurunath M	3BR17EE414		
	Madhu E	3BR17EE423		
	Naveen kumar N V	3BR17EE438		
19	S sujatha	3BR17EE085	Prof. Parvathi	Automatic phase change over for three phase electricity system using AT89C52 micro controller
	Yasmeen	3BR17EE122		
	Dasaramahesha	3BR18EE401		
	Naveen k r s	3BR17EE437		
20	Manasa .T	3BR17EE105	Prof. Vijayakrishna M	IOT based vehicle theft detection
	Shravani. N	3BR17EE092		
	Nandish V M	3BR17EE111		
	Rajashekar N	3BR17EE075		
21	Gadilingappak	3BR18EE402	Prof. Vijayakrishna M	Smart water management using ardunio
	Lokeshnaik V	3BR18EE407		
	V mounika	3BR18EE422		
	Kavitha	3BR18EE406		
22	Subhash Chandra patel M	3BR17EE0097	Prof. Harish Kumar G	Automated speed control of fan using Ardunio by temperature sensor
	T Supriya	3BR17EE107		
	Sujith .L	3BR17EE100		
	Sushma	3BR17EE103		
23	Narasimhaprasad	3BR17EE106	Prof. Harish Kumar G	Solar based E uniform for soldiers who work at extreme high and low temperature.
	Manjunaik R	3BR18EE408		
	Ganesh naik L R	3BR18EE403		
	Purshuttam	3BR18EE415		
24	Neelaganga.B.B.	3BR17EE063	Prof. Santhosha B M	IOT prison break monitoring and alerting system.
	K Anuradha	3BR17EE038		
	Deepak dolekar	3BR17EE022		
	shyamala	3BR17EE048		
25	Channabasava T	3BR17EE018	Prof. Santhosha B M	Solar based charging stations for electric vehicles
	B Bhavani	3BR17EE011		

	Ajay kumar D	3BR17EE005		
	Aishwarya N	3BR17EE004		
26	Anithalakshmi G	3BR17EE025	Prof. PushpalathaKumari	Smart solar grass cutter with lawn coverage
	Ayesha siddiqua	3BR17EE010		
	R chetan	3BR17EE072		
	Deekshith.Y	3BR17EE021		
27	Tarun Singh J Rangawale	3BR16EE091	Prof. Vijayakumar M K	IOT patient health monitoring project
	SumanthVarma K	3BR18EE418		
	PradeepVarma K	3BR18EE414		
	KolukuluriSandeep	3BR16EE033		
28	Sandhya b	3BR17EE087	Prof. Shanthala H	Arduino based power generation using solar energy and back EMF
	Jaffersadiqali	3BR18EE405		
	N Mahesh kumar	3BR18EE411		
	Nikhil. C	3BR18EE412		
27	Sudarshan Reddy .B	3BR17EE098	Prof. Shanthala H	IOT based electrical power theft detection and location tracking
	Rajesh M	3BR17EE076		
	KoriBasavaraj	3BR17EE045		
30	Nithinkumar	3BR16EE052	Prof. Chandan K R	Contactless temperature detector and entrance door opener for COVID-19 Safety
	Pavankalyan M	3BR16EE055		
	Surendrababu M	3BR16EE085		
	Pavankumar B Jorapur	3BR17EE440		
31	MdArif B	3BR15EE045	Prof. Chandan K R	Real time transformer health monitoring system using IOT technology
	P G Preethamgupta	3BR15EE058		
	Lakshmi N	3BR16EE034		
	Swati K K	3BR16EE089		
32	B vinay Krishna	3BR17EE013	Prof. sarala	Agricultural pesticide spraying robot.
	B saisantoshRao	3BR17EE015		
	G Manohar	3BR17EE028		
	Nagarathna	3BR17EE060		
33	Moinuddin	3BR18EE409	Prof.Nandini	Sun tracking solar panal to track the maximum rays using LDR's
	Samreennawaz	3BR17EE086		
	Nishatanjum S	3BR18EE413		
	Misbafathima	3BR15EE049		
34	Vidyashree D H	3BR17EE116	Prof.Nandini	Protection of load and charge in solar power management
	Vanajakshi	3BR18EE423		
	Yashaswini.U	3BR17EE121		
	SharanKumar.P	3BR15EE080		
35	Mohammed Yaseen B	3BR16EE045	Prof.RajyaLakshmi	IOT based energy meter with current , voltage and cost monitoring system.
	Sandhaya	3BR17EE033		
	Aruna	3BR17EE030		
	Radha			
36	Kalyankumar	3BR17EE042	Prof.RajyaLakshmi	Dual axis solar tracker using ardunio
	Jeevargiraghavendakumar	3BR17EE035		
	Netesh .T.	3BR17EE064		
	Md. Muddassir	3BR17EE051		

37	Vaishnavi M	3BR17EE113	Prof. Gangadhara	Solar power vehicle with auto obstacles avoidance using ultra sonic sensors
	Usha rani	3BR18EE421		
	Mounika	3BR18EE410		
	Venkteshakumarnaik M R	3BR17EE115		
38	Syed khadarbasha Q	3BR17EE104	Prof. Gangadhara	Coin insertion based mobile phone charger
	Vijay kumar	3BR17EE118		
	Vishnu E M	3BR17EE119		
	Wilfrad joseph W	3BR17EE120		

BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT
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7TH SEMESTER PROJECT BATCH LIST 2020-2021

B.No	U.S.N	STUDENTS NAME	PROJECT TITLE	GUIDE/ SIGN
B1	17CV017	Bheemesha	An experimental Investigation on High Performance Concrete by replacement of nano silica to cement	Mr. Tanu H M
	17CV427	Raju T		
	17CV034	Harish Agrahara K S		
	17CV023	Dilip Kumar M		
B2	17CV057	Manish Kumar Pandey	An Experimental Investigation on durability properties of geopolymer concrete	Mr.Md Khalid S
	17CV431	Sridhar S		
	16CV081	Udaya Kumar		
	17CV059	ManjunathChakoti		
B3	17CV069	Sai Prabhu M	Performance Analysis of Sequential Batch Reactor	Dr. T. H Patel
	16CV020	Praveen Kumar G		
	16CV045	Netravathi G L		
	17CV071	Nagashree		
B4	17CV058	Manjula	Experimental Investigation on CC pavement slab using ceramic aggregate as partial replacement of conventional aggregate	Mr. S.V.Patil
	17CV013	B.M Kotresh		
	18CV413	Kavya J		
	17CV049	L Prajwal Kumar		
B5	17CV036	Ibrahim Khalil Ulla K	Geotechnical Engineering Effects of dumping municipal solid waste on soil and ground water properties of Ballari city	Mr.Ravichandra A H
	17CV030	Goutham Nayak B		
	17CV053	Mahammad Riyaz		
	18CV418	Ramesh K		
B6	18CV423	Sanjayakumara	Stabilization of BC soil using Bio enzymes	Mr.Ravichandra A H
	16CV068	SharanaBasav		
	17CV008	Anitha Lakshmi V A		
	17CV012	Divya B		

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B.No	U.S.N	STUDENTS NAME	PROJECT TITLE	GUIDE/ SIGN
B7	17CV022	Dattatreya P G	Stabilization of BC soil using coconut coir and GGBS	Mr. Vinaykumar H
	17CV009	AnnappaGouripur		
	16CV009	Asha H		
	18CV426	Shanthi MB		
B8	17CV029	Geethasree B S K	Study on the effect of partial replacement of Nano material to cement for High Performance Concrete	Mr. Tanu H M
	17CV075	Navya J		
	18CV433	VinayakNavali		
	17CV082	PolakaYerriswamy		
B9	17CV026	G R Sai Raviteja	Rainwater harvesting methods in rural areas using computational methods	Dr. H. Mahabaleswara
	17CV125	Swetha B		
	17CV104	Sneha		
	18CV406	G Manikanta		
B10	17CV032	Guruprasad P	A study on partial replacement of coarse aggregates by jamma bricks in concrete	Mr. Narayanappa
	17CV081	Pankaj Joshi		
	17CV078	Niveditha N		
	18CV432	Uma R		
B11	17CV011	Aruna Kumar B	A study on properties of concrete made with processed granular blast furnace slag	Mr. Basavaraj B
	17CV074	NaveenaHanigi		
	17CV080	Panisurya G		
	18CV411	JeelanBhasha P S		
B12	17CV070	MuraliKarthik B M	Experimental study properties of fiber reinforced concrete using silica fume by partial replacement of cement	Mr. Narayanappa
	17CV095	S Vidya Shree		
	17CV052	Mahammad Abdul		
	18CV405	Divya Bai K		

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B.No	U.S.N	STUDENTS NAME	Project Title	GUIDE
B13	17CV031	Gunda Sai Nithisha	Experimental study on performance of SCC containing fly ash and stone dust by partial replacement of cement and sand	Mr. Sagar N S
	17CV073	Nandini Y		
	17CV096	Sai Rahul B.S.		
	18CV414	Mohammed Sameer B		
B14	17CV040	Jyothsna P	Ground water potential zones of Ballari city	MR. Syed Sadat Ali
	17CV043	Kalavathi S		
	17CV094	S Surya		
	18CV408	Gururaj H K		
B15	17CV004	AkashPattana Shetty S R	Transportation Engineering A case study on traffic studies and analysis of signalized intersection of Ballari city	Miss.Brunda A
	17CV024	Monisha G		
	17CV108	T Swathi		
	18CV403	Chelovadi Harish		
B16	17CV019	ChethanNaik K	Experimental investigation on Dry Lean concrete using steel slag as partial replacement of conventional aggregates	Mr. S.V.Patil
	17CV016	Bharathi		
	17CV099	ShaikYunus Pasha		
	18CV431	Tulasi		
B17	17CV064	Meghana P	Comparison on removal efficiency of natural coagulants in purification of water	Mr. Srinivas Pujari
	17CV076	Neha Anjum		
	17CV035	HarshaHooli		
	17CV415	Khuthubuddin		
B18	17CV038	Javeed Pasha	Rheological properties of cement mortar with blast furnace slag as replacement of fine aggregates	Mr. Basavaraj B
	17CV124	Karthik Patil G		
	17CV060	Manjunatha G S		
	18CV417	R S Srideep		

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B.No	U.S.N	STUDENTS NAME	PROJECT TITLE	GUIDE/SIGN
B19	17CV115	VineethaSatyanarayanaSiriki	Effect of Hybrid fibres & mineral admixtures on Properties of Geopolymer Concrete	Mr.Md Khalid S
	17CV087	Priyanka G		
	16CV037	Manjunath		
	18CV400	Anwar Pasha		
B20	17CV100	Sharat S Naduvinamani	Experimental study on SIF concrete using M sand and partially replacing cement with silica fume	Mr. Shiva Kumar K
	17CV041	Simran K		
	17CV033	Guru Shiva Kumar		
	18CV425	Shailaja .N		
B21	17CV120	Vishnu P	Experimental study on M30 grade of concrete using Ferro cement and fibers as composite	Mr. Shiva Kumar K
	17CV061	Manoj B M		
	17CV109	Triveni		
	18CV422	Sahana S		
B22	17CV122	Yeshwanth M	Experimental study on fresh and hardened properties of concrete with high density coarse aggregates and quartz sand as fine aggregate	Mr. Anil Kumar H M
	17CV002	Aishwarya P S		
	17CV084	Pradeep		
	18CV419	Revathi B S		
B23	17CV003	Ajay Kumar S Chavan	Use of bamboo as reinforcement in low volume roads	Miss.Brunda A
	17CV110	Usha Rani G		
	17CV119	Vishalakshi		
	18CV424	Shabarish		
B24	17CV090	Rakshitha D	Analysis and design of multi-storey building on hilly terrain using STAAD PRO V8i	Mr.Md.Haseebulla M
	17CV086	Priyanaka		
	17CV046	Krantikumar		
	18CV407	Gireesha K		

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7TH SEMESTER PROJECT BATCH LIST 2020-21

B.No	U.S.N	STUDENTS NAME	PROJECT TITLE	GUIDE/SIGN
B25	17CV047	KuppaSwapnaMadhuri	Manufacture of Geopolymer brick by reuse of waste bricks	Mr. Vinaykumar H
	17CV054	Maheshwari P		
	18CV429	Sunil L A		
	18CV401	Avinash K		
B26	17CV092	Balamanikanta S	Study on ground water quality of different zones of Ballari city and percentage removal of hardness by lime soda process	Mrs. Chaitra
	17CV066	Misba Yasmeen		
	17CV077	Ningappa		
	18CV427	Sonali		
B27	17CV079	PaluvuriRamanjineyulu	An experimental Investigation on properties of light weight concrete replaced by coarse aggregates	Mr. Raviteja U
	17CV065	Mirza Basheer Baig		
	18CV428	Sumanth C		
	17CV088	Syed Mohammed Hashir R		
B28	17CV103	Sindhu K	Land use land cover change analysis of Ballari city using QGIS software	Mr. Syed Sadat Ali
	17CV106	SujendraGoud M		
	17CV114	Vinay B C		
	18CV421	SahanaNanyapur		
B29	17CV101	Sheshadri K	Experimental study on mortar by replacement of fine aggregate with manufactures sand and industrial byproduct	Mr.Md.Haseebulla M
	17CV098	Santosha		
	17CV067	Mohammed Noumaan Faisal		
	18CV415	Muzamil Hussain K		
B30	15CV038	Rakesh Y	Improving strength of recycled aggregate concrete by using Metakaolin	Mr. Sagar N S
	17CV045	KoteSharanaBasava		
	18CV437	Puneet Kumar		
	18CV436	PayarNath		
B31	17CV005	Akbar Hussain	Preparation of concrete using gold mine waste as coarse aggregate	Mr. Anil Kumar H M
	18CV420	Sadashiva		
	17CV085	Prahlad		
	17CV112	Veerabadrappa		

B32	17CV093	Suraj S	Partial replacement of coarse aggregate by coconut shell	Mr. Raviteja U
	17CV068	Mohammed Suhail		
	17CV063	MdShoaib		
	18CV416	Purushottama V		
B33	17CV015	BhajantriDurugappa	Partial replacement of natural fine aggregate with industrial byproduct in mortar application	Mr. Ambreesh
	18CV404	Chethan BM		
	17CV018	C Mohammed Touqueer		
	16CV408	Fakruddin B A		
B34	17CV430	Somesh T	Experimental study on replacing fine aggregate by glass powder in concrete	Mr. Ambreesh
	17CV116	Vinod Kumar		
	18CV410	Hemantharaj Y		
	15CV044	Lakshmi		

Project coordinator **Head of the Department**

Date: 27.10.2020

CIRCULAR

It is here by informed to all the VII Sem students that there project groups and there respective guides have been allotted, further the students are required to meet there guides and discuss about the project work that has to be carried out in VII and VIII sem. The projects should be initiative and analytical must and should, Further you can refer college subscribed Journals for literature survey purpose.

Project Batch list for the year 2020 – 21

Batch No.	Name of the Student	USN	Alotted faculties (Guide)	Title of the Project
B1	Shivaprakash M M A Devika Upendra kumar B Sujith John	3BR17ME127 3BR17ME006 3BR17ME144 3BR17ME134	Dr. Raju Jadar	Pressure Vessel Analysis
B2	A Rohith H. Sai Karthik Syeda Taranum Jahan	3BR17ME127 3BR17ME110 3BR17ME140 3BR17ME077	Prof. Shekar K	Design & Analysis of Car Crash Elements
B3	Bakathatti Saibabu Aravind E V Sai Nikhil Ankush P T	3BR17ME016 3BR17ME012 3BR17ME030 3BR16ME016	Prof.B.Jaya Prakash	Multipurpose Wheel Chair
B4	Chandrashekar V Mohammed Zubair Hussian Zibera S. Sanjay	3BR18ME417 3BR18ME469 3BR18ME511 3BR18ME488	Prof.Pavan B S	Semi Automatic Wheel Chair
B5	Aaman Sami Hemanth Raj Ajay Chauhan Kiran B	3BR17ME005 3BR17ME044 3BR17ME008 3BR16ME076	Prof.Shivarama Krishna	Investigation of Thermal Analysis on Disc Brake Using ABACUS
B6	A Bharath K Shiva kUmar Hanumantha K Satish Kumar	3BR17ME001 3BR17ME048 3BR17ME041 3BR17ME122	Dr.Raghavendra Joshi	Fabrication & Properties of Transparent Wood Experimental Study onThermaconductivity of AMC reinforced with Ironoxide
B7	G Rakesh Reddy Amar K Bheema Shankar B Girish Joshi	3BR17ME032 3BR17ME011 3BR17ME019 3BR17ME036	Prof.Srinivasulu V	Case Study of Performance analysis of a Solar Flat Plate Collector by using Nano fluids
B8	Shivachandra Pramod K Kondaiah A T Kedar	3BR16ME197 3BR17ME050 3BR17ME055 3BR17ME052	Prof.Gavisiddesh a P	Evaluation of wear behavior of Hybrid Aluminum MMC
B9	Rahul P Marriswamy K R Akhil K Sai Pavan K C	3BR16ME110 3BR16ME093 3BR16ME008 3BR16ME142	Prof.B.Jaya Prakash	Self Balancing of Electric Brake

B10	R Darshan Nitin Kumar C A Manikanta Pradeep Kumar S	3BR17ME094 3BR17ME084 3BR17ME066 3BR17ME092	Prof.Sreeharsha B T	Experimental Performance of Heat Transfer by using Copper Fin in Forced Convection
B11	Ramanna Gouda Pavan Kumar E Pradeep Siddarth M C	3BR17ME100 3BR17ME088 3BR17ME091 3BR17ME058	Prof.Ravi G	No title
B12	S Jafar Sadiq Rakesh Gouda V Mohammed Shakir Rayees Ahmed Khan	3BR17ME107 3BR17ME098 3BR17ME061 3BR17ME104	Prof.Manjunath E	Plug in Hybrid Bicycle& Hybrid Power Plant
B13	T Ravi Kumar S Arjun P Sai Teja Sai Mahanth	3BR17ME103 3BR17ME106 3BR17ME114 3BR17ME112	Prof.Raghavendra setty G	Design & Fabrication ofEco-Friendly Water Purifierfor Remote Villages using Wind Energy
B14	Neeraj Kumar Singh Manish Kumar Pandey Sagar Kurali Sanketh Pal	3BR17ME083 3BR17ME067 3BR17ME109 3BR17ME120	Dr. Umesh M Daivagna	Design & Fabrication of Pneumatic Pump Making Machine
B15	Bhargava Reddy Channabasavanna Gouda Manjunatha gosi B Shivakesava	3BR18ME415 3BR18ME477 3BR18ME456 3BR18ME412	Prof. Dhanunjay Kumar	Design of Automatic Channel Cleaner
B16	Kollli Hemanth H M Dayanand Karanam shreyas A M Deepak	3BR17ME054 3BR17ME038 3BR17ME051 3BR17ME003	Prof.Raghavendra K	Flow Analysis on a Solar Photovotiac Thermal Fruit Dryer
B17	K Vivek D Basavaraj Darani Kumar S Gagan M	3BR17ME049 3BR17ME024 3BR17ME028 3BR17ME34	Prof.Vijay Kumar B P	Design & Analysis of Break Liner
B18	Nagasuchit S Nitin Krishna K Malapati rohit Kumar Somesh V N	3BR17ME078 3BR17ME085 3BR17ME064 3BR17ME132	Dr.V.Vekataramana	3-D Model of pyrolysis unit to convert plastic to Fuel
B19	Majid Ahmed Khan Mustq Md Faheem Afzar Shaik Md Muhib	3BR17ME063 3BR17ME076 3BR17ME072 3BR17ME124	Prof.Vishnu Prasad	H20 Air Purifier
B20	Rakesh V B Naveen S Batakurki Sachin K A H M Prajwal	3BR17ME099 3BR17ME082 3BR17ME108 3BR17ME002	Prof.Manjunath T H	Automatic Pneumatic Ramming Machine
B21	Venkatesh N Vinayaka D Vishwanath H Vishwa B M S	3BR17ME150 3BR17ME154 3BR17ME157 3BR17ME158	Prof.Pavan Kumar B K	Comparitive Analysis of Solar Flat Plate collector With Nano Coating

B22	Sumanth K Vaibhav Kuryal Vinay Kulkarni Yerriswamy	3BR17ME135 3BR17ME146 3BR17ME152 3BR17ME159	Dr. Ganesh B	Development of Frictionless Eddy Current Braking System
B23	Kumar Kalyan Kumar B Kudithini Viripakshi Kiran Kumar B	3BR18ME445 3BR18ME438 3BR18ME444 3BR18ME441	Prof.Raghavendra Kurnool	Study of Properties of Gas Genrated out of Composite Wood
B24	Gurunath R M Hagari Lingappa k Rajesh A Ravi	3BR18ME427 3BR18ME429 3BR18ME484 3BR18ME485	Prof.Kalyan Babu	OPtimazation & Analysis of Crankshaft
B25	V.Chiranjeevi Sajja Venkatesh Md. Saqlain Naveen T	3BR18ME419 3BR18ME490 3BR18ME468 3BR18ME475	Prof.Mayur D Pawar	Design & Analysis of easy Handling Tolley
B26	Siddaraja B K Vijay Kumar Md. Shafi Hadapada karthik	3BR18ME495 3BR18ME506 3BR18ME464 3BR18ME428	Prof. Shivakumar.S.Y	Design of pedal Powered Washing Machine& Grami Grinder
B27	Mahendra K Gagan Chandu R Pavan Kumar G Pavan U	3BR17ME062 3BR17ME033 3BR17ME086 3BR17ME089	Prof.Maharaja Gouda	3-D Modelling of Elecric Trike using solar
B28	Praveer A Santosh K Manjunath B Madhusudan S	3BR17ME093 3BR16ME071 3BR17ME068 3BR17ME059	Dr.Anil Kumar H M	Investigation of Mech Properties of Poly Electric Composites
B29	Vinod B Sandeep kumar S G Shivu Kumar C Yogesh B	3BR17ME155 3BR17ME118 3BR17ME128 3BR17ME160	Prof. Venkatesh K C	Design & Analysis of power generation using railway track
B30	Nadeem Sultan Muzamil M R K Jagadish Imtiyaz G	3BR18ME461 3BR18ME460 3BR18ME436 3BR18ME432	Prof.Md Fayaz	Design of fire extinguisher ball drone
B31	Siddaram Samir Hussain Shaik Nawaz Md. Abdul Khadar	3BR17ME130 3BR17ME117 3BR17ME125 3BR17ME071	Prof.Santosh V Janmatti	Study of Mech Properties on Metal Matrix composite for Bearing Application
B32	H Yashwanth Kumar H Basavana Gowda K Hari Krishna Chandramouli SSM	3BR17ME045 3BR17ME040 3BR17ME042 3BR17ME020	Prof.Taranath A	Fabrication & Properties of Transperant Wood
B33	Md. Nawaj D K Md. Asif Anitha B B S Latha	3BR18ME462 3BR18ME466 3BR17ME162 3BR18ME411	Prof. Suraj V Yadahalli	Synthasis and Testing of Rubber Transperent Woood

B34	Iqbal S Sadiq C H Niteesh Sunil P	3BR17ME046 3BR17ME060 3BR17ME022 3BR17ME136	Dr.Lakshmikumari	Design of Face Shield Using 3-D Printing
B35	Teju Swaroop M Abhishek Md Wasim Akram Bharath Kumar H C	3BR15ME218 3BR15ME096 3BR15ME130 3BR15ME031	Prof. Rajashekar K	Pedal Operated Air Blower
B36	Mounesha Mekara kavi Raj Udhakara C Mahantesh K	3BR18ME416 3BR18ME476 3BR18ME497 3BR18ME452	Prof. Banakar Nagaraj	Design of fabrication of stair climbing trolley
B37	Ajay Kumar E Vali Prashanth Kumar K Laxminarayana Veeresh M	3BR18ME402 3BR18ME503 3BR18ME448 3BR18ME504	Dr.Raghavendra Joshi	Design Fabrication of Tesing of Pneumatic Air Engine
B38	Sireesha V Saroja Surya banu Farath Fareen	3BR17ME126 3BR18ME491 3BR18ME500 3BR17ME077	Dr.Lakshmikumari	3 D Printing
B39	Darshan Kayadad Samarth Vernekar Sanjay M Suraj Pal	3BR17ME026 3BR17ME115 3BR17ME119 3BR17ME137	Dr.V.Vekatarama na	Digital Fuel Meter
B40	Manjunath V Danraj Kumar V Babu Bharath M Chandra sekhar Reddy	3BR18ME458 3BR18ME420 3BR18ME413 3BR18ME418	Dr. Raju Jadar	Study of properties of Gas generated out of composite wood through gasification
B41	Uday Kumar V Sharan Pujar Bharath Kumar Shiv Prabhu A	3BR16ME180 3BR15ME196 3BR16ME029 3BR16ME163	Prof.Raghavendra K	Power Generation from Exhaust Heat Using Peltier Model
B42	Yuvraj G Harisha M Bharath K Jiru Prakash	3BR18ME510 3BR18ME430 3BR18ME414 3BR18ME437	Dr. Umesh M Daivagna	Design & Fabrication of Multipurpose Wheel Chair
B43	Uttam G Suresh Kumara Mahndra U Raghu B	3BR18ME502 3BR18ME499 3BR18ME454 3BR18ME482	Dr. Ganesh B	Design & Sanitisation Disinfecting Gate – Sanitizing Booth
B44	Vikas T Vinay Kumar k Siddarth Yogesh M	3BR17ME151 3BR17ME153 3BR17ME131 3BR17ME161	Prof.Manjunath T H	Combination of Simple Pedal Brake on Accelerator System
B45	Hadilingappa Nayakara Roshan Zameer Akash S Sushanth P	3BR18ME422 3BR18ME487 3BR18ME404 3BR18ME501	Dr. Anil Kumar H M	Design & Analysis of Regenarative Disk Breaking System
B46	Khaji Zunaid Ahmed Md Tayab Ali Farak Muaz Ballary Md Asif	3BR18ME440 3BR18ME465 3BR18ME470 3BR18ME451	Prof. Dhanunjay Kumar	Study of Fabrication of Mechanical Testing of natural Fiber reinforced polymer composite
B47	Pavan Kalyan P Muralidhar V	3BR18ME479 3BR18ME471	Prof. Banakar Nagaraj	Experimental studies on guava fruit drying using solar dryer

	Vishwanath	3BR18ME508		
B48	S K Md Gouse Samdani Venkatesh B Usama Junaid Syed Md Mohsin	3BR17ME123 3BR17ME149 3BR17ME145 3BR17ME138	Prof.Srinivasulu V	Solar tube day lighting
B49	G B Madhu Babu Akhil M Srinivas Naidu A Mahendra B M	3BR18ME450 3BR18ME405 3BR18ME496 3BR18ME453	Prof. Sekhar K	Self Balancing of 2 – Wheeled Motor Bike
B50	Kiran Naik Pandurangha P R Kishan B Suvarna Akash Kumar	3BR18ME442 3BR18ME478 3BR18ME486 3BR18ME403	Prof.Shivaramakrishna	Study on maximization of reposibility in electrostatic machine by using Qc Tools & techniques in metal industry
B51	Pradeep U Harshavardhan Reddy P Ajay Kumar Y	3BR18ME480 3BR18ME431 3BR18ME509	Prof.Pavan Kumar B K	Modelling & Analysis of foot step power generation using Rack & pinion arrangement
B52	Abhisheka C Kishore Kumar Jagadish K Kumara K	3BR18ME400 3BR18ME443 3BR18ME435 3BR18ME446	Prof.Mayur D Pawar	Design of Agricultural Waste Pallet Machine
B53	Akhil Gowda R Nagamurthy K M Sharath Kumar S B Vinod Raj M	3BR17ME403 3BR17ME467 3BR17ME489 3BR17ME508	Prof.Sreeharsha B T	Experimental Performance Analysis of Window Air Conditioning System

15 Scheme				
S.NO	NAME OF THE STUDENT	USN	GUIDE NAME	TITLE OF THE PROECT
B54	Srikanth S K JohnsonRaj Durga Prakash V Keshava B	3BR16ME167 3BR16ME063 3BR16ME044 3BR17ME053	Prof.Md Fayaz	Design of Solar Powered at shimmer robot
B55	Mahendra Y Naresh M B Kasim Sab Jadi Murthy H K	3BR18ME455 3BR18ME472 3BR18ME439 3BR18ME434	Prof.Vijay Kumar B P	Analysis of Piston by using Ansys
B56	B Suresh Reddy B Harshavardhan Reddy K Ramesh	3BR16ME022 3BR16ME057 3BR16ME101	Prof. Shivakumar.S.Y	Solar Operated Multi Crop Threshing Machine
B57	C R Manikanta Sharana Basava gouda Lohit K Veeranjineya	3BR17ME412 3BR16ME055 3BR17ME448 3BR17ME426	Prof.Ravi G	Study & fabrication of Dust Collector
B58	Darshan Patel Akshay Karanam Sai Pavan Manoj	3BR17ME027 3BR17ME010 3BR17ME018 3BR17ME007	Prof.Manjunath E	Application of Adaptive New fuzzy Interface system ferfant diagnosis
B59	Chetan Kumar N Ganesh G Bhargav Reddy Harish Kumar	3BR17ME021 3BR17ME035 3BR17ME031 3BR17ME043	Prof.Janamatti	Synthasis & Charecterization of AL7075

B60	Ajim Basha MD.Moin K.K Amal Krishna Guru Murthy.Y	3BR18ME410 3BR18ME467 3BR18ME406 3BR18ME426	Prof.Gavisiddesha P	Design & Fabrication of Pedal Operated Drilling & Grinding Machine
B61	Rakesh Kumar Anil kumar B B H Sodesh	3BR17ME437 3BR17ME405 3BR15ME021	Prof.Jayaprakash.B	Smart Power Packed Bag
B62	Santosh Kumar L Pradeep Singh K Pavan Kumar Santosh H G	3BR16ME470 3BR16ME458 3BR16ME429 3BR16ME471	Prof. Pavan B S	Modeling Dry Coconut Slicer
B63	Kenchana Gouda Ameer Hussain Md Haseeb Hayat Yashwant G	3BR16ME074 3BR16ME404 3BR17ME458 3BR16ME195	Prof. Venketesh K C	Design & Fabrication of Bio Composite Helmet
B64	Md. Imran H Krishna B.T Kiran K B Ravi Kumar Naik	3BR16ME441 3BR16ME435 3BR16ME434 3BR15ME178	Prof.Taranath A	Solar Operated Disinfictant Robot Sprayer by using Android Mobile
B65	Ankush PT Sheik Shiraj Sagar A Vishal Sharma	3BR16ME016 3BR15ME098 3BR15ME003 3BR16ME193	Prof.Gavisiddesha P	Hard Materials Machining Performance Optimization with Tools & Lubrications
B66	Sathyanarayana.M Mehaboob Basha Jambunath	3BR17ME485 3BR17ME454 3BR17ME435	Prof.Raghavendra Kurnool	Design of Automatic Tyre Inflamation System

HOD
Dr. Y. BASAVARAJ

Project Co-ordinator
Prof. B. VISHNU PRASAD

Ballari Institute of Technology and Management(BITM),Ballari.
Department of Management Studies (MBA)
Project List with Title 18MBAPR407

SNo	USN of the Student	Name of the student	Title of the Project	Name of the Guide(in CAPITAL LETTERS)
1	3BR19MBA54	ISHWARYA LAKSHMI KAKUMANI	A STUDY ON RISK AND RETURN ON INDIVIDUAL SECURITIES AT MOTILAL OSWAL FINANCIAL SERVICES, BALLARI	DEVIKA RANI P
2	3BR19MBA56	JAYALATHA S	GREEN BANKING AND ITS SUSTAINABILITY- A STUDY OF SELECT PUBLIC AND PRIVATE SECTOR BANKS IN INDIA	DEVIKA RANI P
3	3BR19MBA64	KAMAKSHI N	A STUDY ON INITIAL PUBLIC OFFERING IN INDIA- A STUDY CARRIED OUT FOR THE PERIOD FROM 2016-2020	DEVIKA RANI P
4	3BR19MBA83	MANOJ B R	EFFECT OF DEMONETISATION ON INDIAN BANKS- A STUDY WITH REFERENCE TO SOME SELECT PRIVATE AND PUBLIC SECTOR BANKS USING CAMEL RATING MODEL	DEVIKA RANI P
5	3TR19MBA70	SUMA DEVALE	A STUDY ON TECHNICAL ANALYSIS OF SELECT BLUE CHIP COMPANIES AT ANGEL BROKING- HYDERABAD	DEVIKA RANI P
6	3TR19MBA78	UMESHA S	MERGERS AND ACQUISITIONS IN INDIA- A STUDY OF PRE AND POST MERGER PERFORMANCE OF SELECT BANKS	DEVIKA RANI P
7	3TR19MBA79	V BASAVARAJESHWARI	A STUDY ON PORTFOLIO RISK AND RETURN AT GEOJIT FINANCIAL SERVICES LTD, BALLARI	DEVIKA RANI P
8	3TR19MBA83	VEERESHA A	A STUDY ON WORKING CAPITAL MANAGEMENT AT SCAN STEELS LTD, BALLARI	DEVIKA RANI P
9	3BR19MBA17	ASHA B	A STUDY ON GLOBAL STOCK MARKET REACTION TO THE ANNOUNCEMENT OF GLOBAL PANDEMIC BY WHO	DINESH K
10	3BR19MBA30	FARAZ KHAN	A STUDY ON EVALUATION OF INDIAN ECONOMY POST ON ATMA NIRBHAR BHARATH	DINESH K
11	3BR19MBA33	RAVINDRA G	A STUDY ON FORCASTING INDIAN STEEL INDUSTRIES STOCK RETURNS	DINESH K
12	3TR19MBA27	PRIYANKA R.V	A STUDY ON STOCK RETURNS AROUND NEW YEARS DAY IN INDIA	DINESH K
13	3TR19MBA33	R SHRUTHI	A STUDY ON STEEL INDEX SECTOR CHANGES IN BEFORE OR AFTER COVID 19 PANDEMIC	DINESH K
14	3TR19MBA36	RAKSHIT KUMAR.E	A STUDY ON THE EVENTS SHAPPED ON THE GOBLE STOCK MARKETS	DINESH K
15	3TR19MBA38	RAMYA K	A STUDY ON BANKING STOCK PRIZE RETURNS FROM THE POST RBI POLICY DECISIONS TO FIGHT COVID-19 WITH RESPECT TO SBI .BALLARI	DINESH K
16	3TR19MBA39	RAMYASHREE.D	A STUDY ON MONDAY EFFECT IN INDIA STOCK MARKET	DINESH K
17	3BR18MBA74	SURESH KUMAR M	A STUDY ON CUSTOMER BUYING BEHAVIOR TOWARDS CF FOODS PRIVATE LIMITED	DIVYA BHARATHI
18	3BR19MBA69	KEERTHI SRI	A ANALYSIS OF FACEBOOK MARKETING AND ITS IMPACT ON CONSUMER BUYING BEHAVIOR	DIVYA BHARATHI
19	3BR19MBA73	LOKESH . K	A STUDY ON INVERTORS PERCEPTION TOWARDS MUTUAL FUNDS	DIVYA BHARATHI
20	3BR19MBA74	M.ASHWAQH HUSSAIN	A STUDY ON VARIOUS ASPECTS OF DIGITAL MARKETING AT GLOBE CONSULTANCY SERVICES -BANGALORE	DIVYA BHARATHI
21	3BR19MBA82	MANJUNATHA	A STUDY ON CUSTOMER SATISFACTION TOWARDS JANKI CORPORATION LTD	DIVYA BHARATHI
22	3TR19MBA12	NAVEEN KUMAR N S	A STUDY ON BRAND PERCEPTION OF CONSMER TOWARDS ARVIND FASHION UNLIMITED BRANDS	DIVYA BHARATHI
23	3TR19MBA17	PAVAN KALYAN	A STUDY ON CONSUMER PERCEPTION TOWARDS SERVICE QUALITY IN INDIAN TELECOMMUNICATION INDUSTRY	DIVYA BHARATHI
24	3TR19MBA32	R. RADHAKRISHNA	A STUDY ON PRE PURCHASE BEHAVIOR OF THE CUSTOMER WITH SPECIAL REFERENCE TO NCC URBAN INFRASTRUCTURE LIMITED	DIVYA BHARATHI
25	3TR19MBA34	RAGHUMAHA REDDY .U	A STUDY ON CUSTOMER SATISFACTION WITH SPECIAL REFERENCE WITH SLV STEEL	DIVYA BHARATHI
26	3TR19MBA37	RAMESHA	A STUDY ON CONSUMER BUYING BEHAVIOR WITH REFERENCE TO GAYATHRI MILK DAIRY	DIVYA BHARATHI
27	3TR19MBA71	SURESH M	A STUDY ON BRAND AWARENESS WITH SPECIAL REFERENCE TO APPLE INDUSTRIES	DIVYA BHARATHI
28	3TR19MBA77	TEJASHWINI.T	A STUDY ON NEW PRODUCT MARKET POTENTIAL" AT M/S SAI PET PREFORMS, HOSPET	DIVYA BHARATHI
29	3TR19MBA86	YERRISWAMY B	A STUDY ON RETAIL RETENTION STRATEGIES WITH REFERENCE TO FMCG	DIVYA BHARATHI
30	3BR19MBA04	AISHWARYA BANAGAR	PERFORMANCE OF MUTUAL FUNDS	Dr. JANET JYOTHII DSOUZA
31	3BR19MBA19	BOYA SARDHAR	AN EMPIRICAL ANALYSIS OF BETA STABILITY IN INDIAN STOCK MARKET	Dr. JANET JYOTHII DSOUZA
32	3BR19MBA35	G.TRIVENI	STOCK MARKET PERFORMANCE DURING C0VID-19 PANDEMIC	Dr. JANET JYOTHII DSOUZA
33	3TR18MBA31	M. ANNAPURNA	A STUDY ON FINANCIAL RATIO ANALYSIS AT JINDAL SAW LIMITED, BELLARY	Dr. JANET JYOTHII DSOUZA
34	3TR19MBA05	MUNAWAR JAHA S	A STUDY ON THE IMPACT OF CAPITAL STRUCTURE ON PROFITABILITY IN INDIAN PRIVATE SECTOR BANKS	Dr. JANET JYOTHII DSOUZA
35	3TR19MBA07	MUZAMIL M D	A STUDY ON PREDICTING FINANCIAL DISTREESS OF AUTOMOBILE INDUSTRY USING ALTMAN Z-SCORE	Dr. JANET JYOTHII DSOUZA
36	3TR19MBA16	P.NOMICA	A STUDY ON STOCK MARKET PERFORMANCE BY USING SHARPE, TREYNOR & JENSON RATIO	Dr. JANET JYOTHII DSOUZA
37	3TR19MBA19	PAVANI. V	AN EMPARICAL STUDY ON THE DAY OF THE WEEK EFFECTED EVIDENCE FROM INDIA	Dr. JANET JYOTHII DSOUZA
38	3TR19MBA25	PREM TEJ S	AN EMPIRICAL STUDY ON CAPITAL ASSET PRICING MODEL IN INDIAN STOCK MARKET	Dr. JANET JYOTHII DSOUZA
39	3BR19MBA03	AFREEN .B	ORGANIZATION CHANGES IN THE NEW NORMAL IN PUBLIC SECTOR UNDERTAKEN: A SPECIAL DIFFERENCE NMDC - DONIMALAI	Dr.B. ANUPAMA
40	3BR19MBA08	AKHILA.N	THE IMPACT OF HR PRACTICES AND POLICES OF EMPLOYEE PERFORMANCE AT KIRLOSKAR FERROUS INDUSTRIES LIMITED	Dr.B. ANUPAMA
41	3BR19MBA11	AMITHA	A STUDY ON, THE IMPACT OF COVID-19 LOCKDOWN ON TECHNOLOGY ADOPTION AND INNOVATION AT SPRINTZEAL PRIVATE LIMITED	Dr.B. ANUPAMA
42	3BR19MBA13	ANJALI	A STUDY ON WELFARE MEASURES OF UNORGANISED LABOURERS IN BELLARY CITY	Dr.B. ANUPAMA
43	3BR19MBA18	B.KEERTHANA	A STUDY ON, LABOUR WELFARE MEASURES	Dr.B. ANUPAMA
44	3BR19MBA21	D. LAVANYA	EMPLOYEE HEALTH SAFETY & WELFARE MEASURES AT JSW STEELS LIMITED	Dr.B. ANUPAMA
45	3BR19MBA22	D. PRADEEP KUMAR	A STUDY ON EMPLOYER BRANDING ON FMCG SECTOR	Dr.B. ANUPAMA
46	3BR19MBA24	DHANUJA SUNKARAVALLI	A STUDY ON EMPLOYEE SATISFACTION ON THE BASIS OF SALARY AND WELFARE	Dr.B. ANUPAMA
47	3BR19MBA25	DHARANI R C	ASTUDY ON RECRUITMENT AND SELECTION AT APPLE INDUSTRIES	Dr.B. ANUPAMA
48	3BR19MBA31	G AKHILESH	A STUDY ON IMPACT OF TRAINING AND DEVELOPMENT OF EMPLOYEES ON PRODUCTIVITY IN IT SECTOR	Dr.B. ANUPAMA

Ballari Institute of Technology and Management(BITM),Ballari.
Department of Management Studies (MBA)
Project List with Title 18MBAPR407

SNo	USN of the Student	Name of the student	Title of the Project	Name of the Guide(in CAPITAL LETTERS)
49	3BR19MBA36	G. VENKAT HARISH	A STUDY ON WORK LIFE BALANCE AT WISDOM IT SERVICES PRIVATE LIMITED, HYDERABAD	Dr.B. ANUPAMA
50	3BR19MBA42	H S SUMA	PERFORMANCE APPRAISAL SYSTEM AT CLOUT BUSINESS NETWORK LIMITED	Dr.B. ANUPAMA
51	3BR19MBA86	PUJITHA D	EFFECTIVENESS OF HEALTH AND SAFETY MEASURES OF EMPLOYEES AT KALATHIL BROTHERS CONSTRUCTION CO. PVT. LTD	Dr.B. ANUPAMA
52	3TR19MBA09	N.SRI VIDYA LAKSHMI	A STUDY ON EFFECTIVENESS OF GRIEVANCE HANDLING MECHANISM AT UNITECH CONCRETE	Dr.B. ANUPAMA
53	3TR19MBA45	RESHMITHA GULLAPALI	SATISFACTION LEVEL OF EMPLOYEES TOWARDS HR POLICIES AND PROCEDURES IN KGR INDUSTRIES	Dr.B. ANUPAMA
54	3TR19MBA49	SABA KOUSER	A STUDY ON EMPLOYEE RELATIONSHIP MANAGEMENT AT SRI HARI SPONGE LLP, RAMPUR	Dr.B. ANUPAMA
55	3TR19MBA52	SAGAR.R	A STUDY ON EVALUATING EFFECTIVENESS TRAINING AND DEVELOPMENT WITH EMPLOYEES SPECIAL REFERENCE TO AUTOMOBILE INDUSTRY	Dr.B. ANUPAMA
56	3TR19MBA53	SAHANA R K	A STUDY ON PROMOTION AND REWARD POLICY WITH SPECIAL REFERENCE TO IT INDUSTRY	Dr.B. ANUPAMA
57	3TR19MBA64	SHRUTHI	A STUDY ON EMPLOYEE MOTIVATION IN BANKING SECTOR	Dr.B. ANUPAMA
58	3TR19MBA65	SINDHU. M	DETERMINANTS OF TEAMWORK AT ILACS TECHNOLOGIES BANGALORE	Dr.B. ANUPAMA
59	3TR19MBA66	SOWMYA VP	A STUDY ON EMPLOYEE SATISFACTION TOWARDS WORKING ENVIORNMENT IN FOOD INDUSTRY SITUATED AT BALLARI	Dr.B. ANUPAMA
60	3TR19MBA67	RC SHREELATHA	A STUDY ON RECRUITMENT AND SELECTION AT VIJAYSHREE RESORT	Dr.B. ANUPAMA
61	3BR17MBA31	K SAI CHARAN	ACCEPTANCE AND ADAPTABILITY OF LEARNING MANAGEMENT SYSTEM IN AN ORGANIZATION	Dr.CHRISTOPHER RAJ
62	3BR18MBA44	MAREGOWDA. K	A STUDY ON EVALUATION OF CONSUMER SATISFACTION TOWARDS THE GILLETTE PRODUCTS AT BALLARI CITY	Dr.CHRISTOPHER RAJ
63	3BR19MBA16	ARUN NAYAKA. J	THE EVALUATION OF CUSTOMERS PERCEPTION TOWARDS WRIST WATCHES IN BALLARI CITY	Dr.CHRISTOPHER RAJ
64	3BR19MBA20	CHITTURI PRAVEEN	A STUDY OF CUSTOMER SATISFACTION TOWARDS BRANDED FOOTWEARS IN HOSPET	Dr.CHRISTOPHER RAJ
65	3BR19MBA26	DURGA PRASAD. G	A STUDY ON DEALER SATISFACTION WITH SPECIAL REFERENCE TO ULTRATECH CEMENT, KOPPAL	Dr.CHRISTOPHER RAJ
66	3BR19MBA27	DURUGAPPA. H	EVALUATION OF CUSTOMER PERCEPTION TOWORDS TWO WHEELER BIKE IN THE CITY BALLARI	Dr.CHRISTOPHER RAJ
67	3BR19MBA43	H.SWETHA	A STUDY ON CONSUMER PERCEPTION ON THE HERBAL PRODUCTS	Dr.CHRISTOPHER RAJ
68	3BR19MBA45	HANUMESH	THE EVALUATION OF CUSTOMER PERCEPTION TOWARDS PERFUMES IN CITY OF BALLARI	Dr.CHRISTOPHER RAJ
69	3BR19MBA46	HARISH. L	A STUDY ON BRAND LOYALTY PROGRAMMERS TO ATTRACT THE CUSTOMER A CASE OF BALLARI CITY	Dr.CHRISTOPHER RAJ
70	3TR18MBA29	KUMARASWAMY KANNI	A STUDY ON CONSUMER SATISFACTION WITH SPECIAL REFERENCE TO MORE RETAIL LIMITED	Dr.CHRISTOPHER RAJ
71	3TR19MBA15	OM KRISHNA. A	A STUDY ON CUSTOMER SATISFACTION OF MAHESH POLYMERS PVC PIPES	Dr.CHRISTOPHER RAJ
72	3TR19MBA22	POONAM JANGID	A STUDY ON CUSTOMER SATISFACTION AT SHREE FORGINGS- BANGALORE	Dr.CHRISTOPHER RAJ
73	3TR19MBA28	PRUTHVI. S	A STUDY ON CUSTOMER EVALUATION IN FERTILIZERS AND PESTICIDES BALLARI REGION	Dr.CHRISTOPHER RAJ
74	3TR19MBA29	PUTTAGUNTA PRADEEP	A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT AT BISLERI INTERNATIONAL PVT.LTD, BANGALORE	Dr.CHRISTOPHER RAJ
75	3TR19MBA30	R. G. TRIVENI	EVALUTING BRAND AWEARNESS OF COSMETIC PRODUCTS AMONG WOMEN	Dr.CHRISTOPHER RAJ
76	3TR19MBA31	R. PRAJWAL GOWDA	A STUDY ON THE ROLE OF CONSUMER EXPERIENCE TOWARDS THE DESTINATION LOYALTY AT VIJAYSHREE HOTEL	Dr.CHRISTOPHER RAJ
77	3TR19MBA41	RAVI KUMAR	A STUDY ON CUSTOMER SATISFACTION WITH HALLEY'S BLUE STEEL INDUSTRY	Dr.CHRISTOPHER RAJ
78	3BR19MBA01	A NEELAKANTA	A STUDY ON INVESTORS BEHAVIOUR TOWARDS MUTUAL FUNDS DURING COVID -19	Dr.SHAHEEDA BANU S
79	3BR19MBA02	A PAVAN KUMAR	COMPARATIVE STUDY ON STREAMING SERVICES NETFLIX AND AMAZON PRIME VIDEO	Dr.SHAHEEDA BANU S
80	3BR19MBA05	AISHWARYA K	A STUDY OF PERCEPTION ON EFFECT OF ONLINE ADVERTISEMENT OF CONSUMER	Dr.SHAHEEDA BANU S
81	3BR19MBA06	AKASH GUPTA	A STUDY ON CONSUMER PREFERENCE TOWARDS ORGANIC PRODUCTS	Dr.SHAHEEDA BANU S
82	3BR19MBA09	AMBRESH MG	A STUDY ON PERCIPTION OF RETAILERS TOWORDS OF VARMORA TILES	Dr.SHAHEEDA BANU S
83	3BR19MBA12	ANGADI BASAVARAJU	OPINION OF CONSUMER ON RETURN ON INVESTMENT (ROI) OF MUTUAL FUNDS OF NIPPON INDIA MUTUAL FUNDS	Dr.SHAHEEDA BANU S
84	3BR19MBA80	MALLIKARJUN	A STUDY ON CUSTOMER RELATIONSHIP MANAGEMENT TOWARDS KIRLOSKAR PRODUCTS AT KOPPAL	Dr.SHAHEEDA BANU S
85	3TR18MBA69	SOUMYA SHETTY	A STUDY OF NETWORK MARKETING THE FUTURE WORLD COMPANIES WITH SPECIAL REFERENCE TO AMWAY, ORIFLAME, MODICARE, DA-BANK, VESTIGE	Dr.SHAHEEDA BANU S
86	3TR19MBA01	MD MEHABOOB BASHA B	AVAILIABILITY OF FACTORS OF PRODUCTION DURING COVID PANDEMIC SUITATION (ESPECIALLY LABOURS OUR RAW MATERIALS)	Dr.SHAHEEDA BANU S
87	3TR19MBA02	SHAVIKA .MEDA	A STUDY ON CUSTOMER PREFERENCE TOWARDS HAIR CONDITIONERS	Dr.SHAHEEDA BANU S
88	3TR19MBA03	MEGHA S	A STUDY ON SUPPLY CHAIN MANAGEMENT ON JSW STEELS LTD	Dr.SHAHEEDA BANU S
89	3TR19MBA04	MOHAMMAD S	A STUDY ON STRATEGIC REVIEWS OF DOCTORS TO PRESCRIBE RICHFIELD PRODUCTS (TABLETS)	Dr.SHAHEEDA BANU S
90	3TR19MBA06	MUSHEER AHMED	CUSTOMER PREFERENCE AND SATISFACTION LEVEL TOEARDS AFTER SHAVE PRODUCT	Dr.SHAHEEDA BANU S
91	3TR19MBA08	N PAVAN KUMAR REDDY	A STUDY ON SALES RETURN ON PURCHASE DURING COVID -19 IN D-MART,BANGALORE	Dr.SHAHEEDA BANU S
92	3TR19MBA10	NANDINI.D	CONSUMER ATTITUDE TOWARDS AMUL PRODUCTS	Dr.SHAHEEDA BANU S
93	3TR19MBA13	NEELGAL NIKHIL KUMAR REDDY	A STUDY ON PRODUCT PACKING A VITAL CRITERIA FOR CONSUMER BUYING AT HERITAGE FOODS PVT LTD, HYDERABAD	Dr.SHAHEEDA BANU S
94	3TR19MBA11	NAVEEN KUMAR	A STUDY ON FIVE DIMENSIONS OF SERVICE QUALITY WITH SPECIAL REFRENCE TO APOLLO HOSPITALS	Dr.SHAHEEDA BANU.S
95	3BR18MBA05	ARSHIYA	A STUDY ON TEACHER JOB SATISFACTION WITH REFERENCE TO BELLARI CITY	Immaculate Joseph Keerthika

Ballari Institute of Technology and Management(BITM),Ballari.
Department of Management Studies (MBA)
Project List with Title 18MBAPR407

SNo	USN of the Student	Name of the student	Title of the Project	Name of the Guide(in CAPITAL LETTERS)
96	3BR18MBA56	POOJA PALLEDA	IMPACT OF JOB SATISFACTION ON EMPLOYEE PERFORMANCE WITH REFERENCE TO SCAN STEEL LTD, BELLARY.	KAVITA A
97	3BR19MBA38	GANDHAM KALYANI	HAPPINESS INDEX OF MBA STUDENTS	KAVITA A
98	3BR19MBA50	HONNURUSAB P	STUDY ON SOCIO- ECONOMIC CONDITION OF GINNING LABORS- A CASE OF BALLARI CITY.	KAVITA A
99	3BR19MBA51	HUSSAIN BASHA F	EMPLOYEE ABSENTEEISM AT BMM ISPAT LTD., HOSPET	KAVITA A
100	3BR19MBA52	I V NIRMAL	EMPLOYEE RETENTION AT BLITZ TECHNOLOGY,BANGALORE.	KAVITA A
101	3BR19MBA55	JAFFRI KHATOON	EMPLOYEE MOTIVATION AT VRKP SPONGE & POWERPLANT LLP, BALLARI	KAVITA A
102	3BR19MBA62	K. VIJAYALAKSHMI	PERFORMANCE APPRAISAL IN BANKING SECTOR	KAVITA A
103	3BR19MBA65	SHRAVANI KARADE	TRAINING AND DEVELOPMENT AND EMPLOYEE EFFICIENCY A CASE STUDY OF BANKING SECTOR	KAVITA A
104	3BR19MBA67	KARUTURI THANMAYI	WORK LIFE BALANCE ON HOSPITAL, BALLARI	KAVITA A
105	3BR19MBA84	M SATHYA NARAYANA	EFFECTIVENESS OF RECRUITMENT AND SELECTION AT VMD TECH SYSTEMS PVT.,LTD., BANGALORE	KAVITA A
106	3BR19MBA85	M.S. PRIYANKA	JOB SATISFACTIOM OF HOTEL EMPLOYEES, BALLARI.	KAVITA A
107	3TR19MBA20	POOJA M	A STUDY ON EMPLOYEES WORKLIFE BALANCE AT K.K.R.T.C, BALLARI.	KAVITA A
108	3TR19MBA21	POOJITHA. P	EMPLOYEE MOTIVATION FOR BETTER PERFORMANCE AT SHREE VENKATESWARA SPONGE & POWER PVT, LTD., BALLARI.	KAVITA A
109	3TR19MBA35	RAJESHWARI. M	A STUDY ON JOB SATISFACTION AT MONARCH NETWORTH CAPITAL LTD., HYDERABAD.	KAVITA A
110	3TR19MBA40	RASHMI B	KNOWLEDGE MANAGEMENT SYSTEM AT VASUNDHARA AUTOMATION ENGG. SERVICES AT BANGALORE	KAVITA A
111	3TR19MBA44	REKHA B	EMPLOYEE ENGAGEMENT AT SMIORE LTD., SANDUR	KAVITA A
112	3TR19MBA54	SEEMA	A STUDY ON STRESS MANAGEMENT WITH RESPECT TO SCHOOL TEACHERS	KAVITA A
113	3TR19MBA63	SHRAVANI S	IMPACT OF WORKPLACE ENVIRONMENT ON EMPLOYEE PRODUCTIVITY WITH REFERENCE TO CF FOODS PVT. LTD., HOSPET	KAVITA A
114	3TR19MBA74	SWATHI L	EMPLOYEE SATISFACTION AT INDIGO BLUES, BANGLORE.	KAVITA A
115	3TR19MBA76	TEJASHWINI.N	EMPLOYEE ENGAGEMENT AT ACCENT SOFTWARES, BANGALORE	KAVITA A
116	3TR19MBA80	V S MONIKA	EMPLOYEE RETENTION AT MSPL LTD, HOSPETE	KAVITA A
117	3TR19MBA82	VEENA G	EMPLOYEE MOTIVATION AT KARNATAKA GRAMIN BANK, BALLARI.	KAVITA A
118	3BR19MBA49	HEENA AFREEN	WORKING CAPITAL MANAGEMENT - AN ANALYSIS OF PROFITABILITY AT NMDC LIMITED, DONIMALAI	M FARZANA BEGUM
119	3BR19MBA71	K.BINDU PRIYA	A STUDY OF HOUSING FINANCE WITH SPECIAL REFERENCE, TO DHFL HOME LOAN AT BALLARI	M FARZANA BEGUM
120	3BR19MBA79	MAHITHA GULLAPALI	A STUDY ON NON-PERFORMING ASSETS WITH SPECIAL REFERENCE TO THE BANGALORE CITY CO-OPERATIVE BANK LTD, BANGALORE	M FARZANA BEGUM
121	3TR18MBA85	VICKEY MAZUMDAR	AN ANALYSIS OF STOCK MARKET PERFORMANCE USING SHARPE, TREYNOR'S AND JENSEN MEASURE AT SMC GLOBAL SECURITIES LTD, BENGALURU	M FARZANA BEGUM
122	3TR19MBA73	SUSHMA REDDY G.	A STUDY ON FINANCIAL PERFORMANCE USING RATIO ANALYSIS AT UNITECH CONCRETE, BANGALORE	M FARZANA BEGUM
123	3BR19MBA60	JOSHNA. V	A STUDY ON DEMAND AND RECOVERY OF MICROFINANCE AND ITS COMPONENTS WITH SPECIAL REFERENCE TO KGB	PAVAN KUMAR S. S
124	3TR19MBA81	VARUNI. R	A STUDY ON PERFORMANCE EVALUATION USING RATIO ANALYSIS	PAVAN KUMAR S. S
125	3BR19MBA34	G.SRILEKHA REDDY	A COMPARATIVE STUDY ON FINANCIAL PERFORMANCE OF PRIVATE AND PUBLIC SECTOR BANKS.	PAVAN KUMAR.S.S
126	3BR19MBA23	DEEPTHI N	A STUDY ON EFFECTIVENESS OF COMPENSATION AND BENEFITS AT KPF PVT LTD	Prof Immaculate Kirthika Joseph
127	3BR19MBA48	HARSHITHA	A STUDY ON GREEN WORKPLACE EFFECT ON WOMEN EMPLOYMENT.	Prof Immaculate Kirthika Joseph
128	3BR19MBA68	KAVYA SHREE P	A STUDY ON WORKERS WELL-BEING	Prof Immaculate Kirthika Joseph
129	3BR19MBA72	LINGARAJ B	A STUDY ON EMPLOYEE ENGAGEMENT PRACTICES AT JSW CEMENT	Prof Immaculate Kirthika Joseph
130	3BR19MBA75	M.JAYASHREE	A STUDY ON WORK LIFE BALANCE OF EMPLOYEES AT JINDAL SANJEEVINI MULTISPECIALITY HOSPITAL	Prof Immaculate Kirthika Joseph
131	3BR19MBA76	M.NIKHIL	A STUDY ON EMPLOYEE WELFARE MEASURES WITH REFERENCE TO RBKMUL.	Prof Immaculate Kirthika Joseph
132	3BR19MBA78	NAYANA. M	A STUDY ON EMPLOYEE ABSENTEEISM ON HOSPITALS	Prof Immaculate Kirthika Joseph
133	3BR19MBA81	MANASA SAI	A STUDY ON JOBSATISFACTION AMONG AUTOMOTIVE INDUSTRIES AT BELLARY	Prof Immaculate Kirthika Joseph
134	3TR18MBA80	TOHA ANJUM	A STUDY ON PERFORMANCE APPRAISAL TOWARDS THE KPCL, BANGALORE	Prof Immaculate Kirthika Joseph
135	3TR19MBA50	SABITHA	A STUDY ON EFFECTIVENESS OF EMPLOYEE WELFARE MEASURES	Prof Immaculate Kirthika Joseph
136	3TR19MBA68	SRINIVAS.G	A STUDY ON THE EFFECTS OF MOTIVATIONAL TOOLS ON EMPLOYEES MORALE AT FMCG INDUSTRY	Prof Immaculate Kirthika Joseph
137	3TR19MBA69	SRINIVAS.V	A STUDY ON IMPACT OF PERFORMANCE EVALUATION ON WORKERS PRODUCTIVITY AT JANKI STEEL	Prof Immaculate Kirthika Joseph
138	3TR19MBA72	SURYAKUMARI K	A STUDY OF HR PRACTICES IN SERVICE SECTOR INDUSTRY	Prof Immaculate Kirthika Joseph
139	3BR19MBA53	IRFAAN HUSSAIN	A STUDY ON CONSUMER AWARENESS TOWARDS ONLINE TRADING"	RAVI KUMAR J S
140	3BR19MBA57	JEER MAHESHA	A STUDY ON SOCIAL MEDIA IMPACT ON INVESTOR PERCEPTION" AT RELIGARE ENTERPRISES LIMITED	RAVI KUMAR J S
141	3BR19MBA58	JEEVAN V	A COMPRATIVE STUDY ON INSTAGRAM AND FACEBOOK ADVERTISING	RAVI KUMAR J S
142	3BR19MBA59	JITHENDRA.Y	"A STUDY ON CUSTOMER SHOPPING PERCEPTION"	RAVI KUMAR J S
143	3BR19MBA61 .	K.ALTAF HUSSAIN KURESHI	THE ROLE OF SERVICE SCAPE IN POSTURING OF CUSTOMER SATISFACTION AND POSITVE EMOTIONS" AT CLARKS INN-HAMPI, HOSPET	RAVI KUMAR J S
144	3BR19MBA63	K.SREELATHA	"A STUDY ON FAMILY ORIENTATION IMPACT ON MARKETING COMMUNICATION"	RAVI KUMAR J S
145	3BR19MBA66	KARANAM NITHYA	A STUDY ON EFFECTIVENESS OF PRODUCT PLACEMENT THROUGH REGIONAL SERIALS AT SPECTRUM TECHVISION PVT LTD -BANGALORE.	RAVI KUMAR J S
146	3TR19MBA24	PRAVEENA KUMARA.H	A STUDY ON ROLE OF VISUAL MERCHANDISING ON IMPULSE BUYING	RAVI KUMAR J S
147	3TR19MBA26	PRIYANKA	A STUDY ON AWARENESS OF REAL - TIME MARKETING"	RAVI KUMAR J S
148	3TR19MBA42	RAVIKIRAN SHAILENDRA SHI	A STUDY ON INFLUENCER MARKETING AND ITS IMPACT OF CONUMER BUYING BEHAVIOUR	RAVI KUMAR J S
149	3TR19MBA43	RAVI KUMAR A	A STUDY ON FESTIVE SEASON SALE IMPACT ON CUSTOMER SATISFACTION"	RAVI KUMAR J S
150	3TR19MBA48	S.ZIA NAAZ3TR19MBA48	A STUDY ON IMPACT OF EWOM ON CONSUMER PURCHASING DECISION	RAVI KUMAR J S

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SNo	USN of the Student	Name of the student	Title of the Project	Name of the Guide(in CAPITAL LETTERS)
151	3TR19MBA51	SAGAR MT	A STUDY ON IMPACT OF CELEBRITY ENDORSEMENTS	RAVI KUMAR J S
152	3TR19MBA56	SHARATH KUMAR K	A STUDY ON MARKETING COMMUNICATION DURING IPL 2020 AND ITS EFFECTIVENESS ON FAN LOYALTY	RAVI KUMAR J S
153	3TR19MBA60	SHIVAKUMARA S	A STUDY ON PRODUCT PACKING AND ITS INFLUENCE ON CUSTOMERS"	RAVI KUMAR J S
154	3TR19MBA84	VELAGALA VENKAT REDDY	ASTUDYONRETAILERSRELATIONSHIP MANAGEMENT"AT MEDICO DISTRIBUTORS,GADAG	RAVI KUMAR J S
155	3TR19MBA85	Y HEMAVATHI	A STUDY ON IMPACT OF MOVIE STREAMING SERVICES ON VIEWERS HABITS	RAVI KUMAR J S
156	3BR19MBA14	ANURADHA P	A STUDY ON DETERMINATION OF STOCK PRICES BY USING RELATIVE VALUATION MODELS	RENUKA S
157	3BR19MBA37	GADILINGA G	A STUDY ON CASH FLOW STATEMENT	RENUKA S
158	3BR19MBA41	H PAVAN	A STUDY ON INVESTOR PERCEPTION TOWARDS MUTUAL FUNDS	RENUKA S
159	3BR19MBA47	HARITHA B	A STUDY ON IMPACT OF GST TOWRDS DIARY INDUSTRY WITH REFERENCE TO RBKMUL BALLARI	RENUKA S
160	3BR19MBA77	M SHAFIULLA BAIG	A COMPARATIVE STUDY ON FINANCIAL PERFORMANCE OF JSW STEELS LTD AND TATA STEEL LTD	RENUKA S
161	3TR19MBA55	SHANKARA REDDY P	A STUDY ON DEPOSIT SCHEMES AND STRATEGIES USED BY CANARA BANK	RENUKA S
162	3TR19MBA57	SHEFALI JAIN	A STUDY ON WORKING CAPITAL MANAGEMENT AT OM METAL INFRA PROJECTS LTD	RENUKA S
163	3TR19MBA58	SHILPA	A STUDY ON RECOVERY MANAGEMENT ON PERSONAL LOANS IN BAJAJ FINSERV	RENUKA S
164	3TR19MBA59	SHILPAKALA MG	A STUDY ON CASH MANAGEMENT ACTIVITIES AT HOTHUR ISPAT LTD	RENUKA S
165	3TR19MBA61	SHIVARAJ M	A COMPARATIVE STUDY ON SECURITIES OF DIFFERENT COMPANIES BY USING CAPM	RENUKA S

Internship Details 2020-21

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H Vadiraja	3BR17CS046	j/q spiders	python
Bandi Moneesha	3BR17CS020	j/q spiders	python
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M Venkatratna	3BR17CS078	j/q spiders	python
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Nivedha S	3BR17CS099	J/Q Spiders	Python
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Mohammed Hashir	3BR17CS900	J/Q spiders	python
Sumanth H	3BR17CS163	J/Q spiders	python
Tanseer S M	3BR17CS169	J/Q spiders	python
Sheethal V S	3br17cs146	J/Q spiders	PYTHON
Mohammad Abuzar	3BR17CS076	J/Q Spiders	python
Tharun k	3BR17CS174	mindsoft technologies	Cloud Computing
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M Sai Preethi	3BR17CS077	J/Q Spiders	python
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Pallavi K	3BR17CS106	J/Q Spiders	Python
Vaishnavi J	3BR17CS181	J/Q spiders	python
srinivas V B	3BR17CS156	J/Q spiders	python
Usha v Ballolli	3BR17CS177	J/Q spiders	python
Varsha B	3BR17CS182	J/Q spiders	python
Rexina D	3BR17CS123	J/Q spiders	PYTHON
N Anjana	3BR17CS095	J/Q spiders	PYTHON
N Gnaneswari	3BR17CS098		PYTHON
P Aishwarya	3BR17CS100	J/Q spiders	PYTHON
R Gayathri	3BR17CS117	J/Q spiders	Python
M Shalini	3BR17CS144	J/Q spiders	Python
Akash S Telkar	3BR17CS004	J/Q Spiders	Python
Anusha J	3BR18CS402	Tech Forture Technologies	Data Science
Chandan N	3BR18CS404	Tech Forture Technologies	Data Science
Sherin Shaik	3BR18CS411	Tech Forture Technologies	Data Science
Shirisha J	3BR18CS412	Tech Forture Technologies	Data Science
KALYAN KUMAR P	3br17cs064	J/Q spiders	python

G Chaitra	3BR17CS037	J/Q Spiders	Python
Anusha K	3BR17CS010	J/Q spiders	PYTHON
Taufiya Fathima	3BR16CS163	GVS Private Services Limited	Python
Bhargavi N	3BR17CS023	J/Q spiders	Python
Deepthi Reddy k	3BR17CS032	J/Q spiders	Python
N T Deepthi	3BR17CS096	J/Q spiders	Python
Sai Shivani DR	3BR17CS132	J/Q spiders	Python
Suma G	3BR17CS160	J/Q spiders	Python
Sindhuja Shabadi	3BR17CS150	J/Q Spiders	python
Pavan kumar P	3BR16CS109	J/Q Spiders	Python
RANGAIAHGARI SRAVAN	3BR17CS120	J/Q Spiders	Python
SAHANA SAI B	3BR17CS129	J/Q Spiders	Python
Aishwarya	3BR17CS002	J/Q Spiders	python
C Chaitra	3BR17CS025	J/Q Spiders	Python
Sriraksha M	3BR17CS157	J/Q Spiders	Python
Ashish R Rathod	3BR17CS011	J/Q Spiders	Python
Adil Farhaan M	3BR17CS001	J/Q Spiders	Python
S VINAYA	3BR17CS127	J/Q Spiders	Python
SK Gousiya	3BR17CS152	J/QSpiders	Python
Harshitha Reddy	3BR17CS047	J/Q spiders	Python
G Sahana	3BR17CS039	J/Q spiders	python
Sachin Bhatt	3BR17CS128	J/Q Spiders	Python
Satish reddy	3BR17CS138	J/Q spiders	python
Sai Kalyan Yenugula	3BR17CS138	J/Q spiders	python
Sindhu MP	3BR17CS149	J/Q spiders	python
Shashikala KP	3BR17CS145	J/Q spiders	python
Yamini V G	3BR17CS186	J/QSpiders	Python
Sindhu	3BR17CS148	J/Q Spiders	Python
Thanmai V	3BR17CS173	DRDO	Cyber security
Sumanth C B	3BR17CS162	J/QSpiders	Python
C Neha Thabasum	3BR17CS026	J/QSpiders	Python
ShaikSamrinbanu	3BR17CS143	mindsoft technologies	Cloud Computing
Srikanth	3BR17CS155	J/QSpiders	Python
Snehaja C H	3BR17CS153	J/QSpiders	Python
Ayesha P	3BR17CS014	J/Qspiders	python
Srushti Ramesh Goudar	3BR17CS158	J/QSpiders	Python
Tejashwini Patil	3BR17CS170	J/QSpiders	Python
Ane Chandana	3BR17CS006	J/QSpiders	Python
Supriya S	3BR17CS164	J/QSpiders	Python
Anusha G M	3BR17CS009	J/QSpiders	Python
Srushti.H.N	3BR16CS149	JSW energy limited	Machine Learning
G.SHASHANK REDDY	3BR16CS037	Tech fortune technologies	Machine learning
Megha S Hiremath	3BR17CS089	J/Q Spiders	Python
S Samhita	3BR16CS132	GVS India private limited	Python Web Design
Manasa J S	3BR17CS082	J/Q Spiders	Python
Jhansi. M	3BR17CS055	Tech Fortune Technologies	Machine learning
Priyanka patil	3BR17CS115	J/Q Spiders	Python
jawalkar sairam	3BR17CS134	J/Q Spiders	Python

C Ramya Shree	3BR16CS024	GVS India private limited	Python Web Design
Patil Likhitha	3BR16CS108	GVS India private limited	Python Web Design
Medha R G	3BR17CS410	GVS India private limited	Python
Avula Roopa	3BR17CS013	J/Q spiders	Python
B S MANJUNATH	3BR17CS017	j/q spiders	python
Bala Chandrashekar K M	3BR17CS019	j/q spiders	Python
Shivnarayan Vaidyanathan	3BR17CS147	J/Q Spyders	Python
K N Aishwarya Reddy	3BR17CS061	J/Q Spyders	Python
RASHI KHANDELWAL	3BR17CS122	J/Q Spiders	Python and ML(Basics)
Dabbara Praveen	3BR17CS031	J/Q Spiders	Python
Tejaswini.G	3BR17CS171	J/Q Spiders	python
Divya Bharathi. B	3BR17CS034	J/Q Spiders	Python
Ganesh.P	3BR17CS041	J/Q Spiders	Python
Thaluri Jhansi	3BR17CS172	J/Q Spyders	Python
J Aravind	3BR17CS056	J/Q Spyders	Python
Gaekwad Nikhitha	3BR17CS040	MANAC INFOTECH	Python
Manasa Jawali	3BR17CS083	J/Q Spiders	Python
Lavanya M	3BR17CS074	J/Q Spyders	Python
B Dharani	3BR17CS015	J/Q spiders	python
Meetha M	3BR17CS088	J/Q spyders	Python
Sirisha.J	3BR17CS151	J/Q spyders	python
Ajay Kumar	3BR17CS003	J/Q Spiders	Python
Monisha L	3BR17CS092	J/Q Spiders	Python
Jeer vinayaka	3br16cs401	J/Q spyder	python
Piyush kumar	3BR17CS109	J/Q spiders	Python
kavya	3BR17CS068	J/Q spiders	Python
Matam Nikitha	3BR17CS085	J/Q Spiders	
Jyothi	3BR17CS057	J/Q Spyders	python
K.Jyothi	3BR17CS067	J/Q Spyders	Python
MD Noman	3BR17CS086	J/Q Spiders	Python
Channabasava H	3BR17CS028	J/Q spiders	Python
Nazneen	3BR18CS409	J/Q Spyders	Python
Priyanka B	3BR18CS410	J/Q Sypders	Python
Medha R	3BR17CS087	Kaashiv Infotech	Cloud Computing
Sai Pavan N	3BR17CS131	j/q spyders	python
Preethi.T	3BR17CS113	J/Q Spyders	Python
Vidhya	3br17cs184	J/Q Spyders	Python
k.r.vijay kumar	3br17cs063	J/Q Spyders	python
Pkiranmai	3br17cs102	J/Q Spyders	Python
Prasad G	3BR16CS116	J/Q Spyders	Python
M Bharath Shiva Sai Teja	3BR16CS077	J/Q Spyders	Python
N Naga Sravan Datta	3BR15CS095	J/Q Spyders	Python
Palem Rithishbrahma	3br17cs105	J/Q Spyders	Python
Kuppala Srikanth	3BR16CS066	Tech Fortune Technologies	Machine Learning
Mohammed Fayaz	3BR17CS090	J/Q Spyders	Python and ML(Basics)
swathi	3BR17CS166	J/Q Spyders	Python
karthik	3BR17CS188	J/Q Spyders	python
mallikarjun	3BR17CS406	J/Q Spyders	python

J.Keerthi	3BR17CS053	J/Q Spider's	Python
Bhavana.M	3BR17CS024	J/Q Spiders	Python
Poojitha T	3BR17CS110	J/Q Spiders	Python
goolla renuka	**3br16cs043**	gvs private limited	machine learning
Tasneem Fathima M	3BR18CS413	J/Q Spyder's	Python
Mohammed khaisar	3br17cs091	J/Q Spyders	python
Sai Ram kudupudi	3br17cs135	J/Q Spyders	Python
shaik mashud basha	3BR17CS142	Mindsoft Technologies	Cloud Computing
Ashwini T	3BR17CS012	J/Q Spyders	Python
Badal Singh R	3BR18CS403	Mindsoft Technologies	Cloud Computing
Shaik Mashud Basha	3BR17CS142	Mindsoft Technologies	Cloud Computing
Akhil Y V	3BR18CS400	Mindsoft Technologies	Cloud Computing
Umar Farooq B	3BR18CS414	Mindsoft Technologies	Cloud Computing
suma lavanya	3BR17CS161	J/Q spiders	Python
Swetha M	3BR17CS167	J/Q spiders	Python
Sushmitha	3BR17CS166	J/Q spiders	Python
Karthik MG	3BR17CS188	J/Q Spiders	Python
Jyothi laxmi	3BR17CS058	J/Q Spiders	Python
wahida tarannum	3R15CS182	JSW Energy ltd	python (machine learning)
Prasanna PN	3BR17CS112	J/Q Spiders	Python
Manikanta Reddy	3br17cs084	J/Q Spiders	Python
Praful Kumar	3Br17cs111	Edmuc	Python
Kottresh Vali	3BR17cs072	Edmuc	Python
Manasa.D	3br17cs081	Deloitte	Technology consulting
Chinmayi D	3BR17CS029	J/Q Spiders	Python
P Anusha	3BR17CS101	J/Q Spiders	Python
Usha Sharma. K. M	3BR17CS176	Tech Fortune Technologies	Data science
Jyothsna Sai k	3br17cs059	TechMahindra	CPP L2
Madineni Hemalatha	3br17cs079	j/Q spiders	python
Ranjitha	3BR17CS121	j/Q spiders	python
Mallikarjuna C M	3BR18CS406	J/Q Spiders	python
Priyanka T	3BR17CS116	J/Q Spiders	Python
Shaheen M N	3BR17CS140	J/Q Spiders	Python
Sultana Begum	3BR17CS159	J/Q Spiders	Python
U. Tejashwari	3BR17CS175	Tech Fortune Technologies	Data science
Jyothi	3BR17CS057	J/Q Spyders	Python, AI
Jhansi T	3BR17CS172	J/Q Spyders	Python, AI
Maheshwari PB	3BR16CS080	Tech Fortune Technologies	Data science

Ballari Institute of Technology and Management,Ballari

Department of Electronics and Communication Engineering

Final Year Internship Batch List and Guide for the ACY 2020-21

SL. No	Name of the student	USN	Name of the Project Guide	Title of the Internship	Name of the Firm
1	Ediga Prasanth Gowd	3BR17EC034	Dr U Eranna	IoT with Emedded Systems	Celestial V Solutions, Bangalore
2	Devalla Ajith	3BR17EC029		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangaore
3	H.Gurulingareddy	3BR17EC047		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
4	Havaligi Saran Kumar Reddy	3BR17EC051		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
5	Deepti k Gutti	3BR17EC027	Mr.Raymond	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
6	Dharani k	3BR17EC030		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
7	G Bhavani	3BR17EC037		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
8	G Sunil	3BR17EC041		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
9	U. JAGADESHWARI	3BR17EC168	Mrs.Renuka Sagar	Telecom Technology	BSNL, Ballari
10	KIRAN KUMAR H GOUDAR	3BR17EC076		Telecom Technology	BSNL, Ballari
11	JYOTHI REDDY	3BR17EC015		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
12	B. ATEYA	3BR17EC013		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
13	LAKSHMI LAHARI S	3BR17EC079	Mr. Shivakuamr K S	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
14	Likitha. V	3BR17EC080		Telecom Technology	BSNL, Ballari
15	Sai keerthi.M	3BR17EC140		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
16	Tanisha. P	3BR17EC162		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
17	Mangalagouri	3BR17EC090	Mr.Premachand D R	Web Vedio Design Training	Caddesk, Jaipur
18	S M Jayashree	3BR17EC133		Telecom Technology	BSNL, Ballari
19	Kota VijayKumarReddy	3BR17EC077		IoT with Emedded Systems	Celestial V Solutions, Bangalore
20	Palagiri Sravani Reddy	3BR17EC118		Telecom Technology	BSNL, Ballari
21	Sindhu S	3BR17EC154	Mr.Sagar T V	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
22	Uma Singh	3BR17EC169		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
23	Sumanth M B	3BR17EC156		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
24	Zaheeer Abbas	3BR17EC183		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore

SL. No	Name of the student	USN	Name of the Project Guide	Title of the Internship	Name of the Firm
25	Basavarajeshwari B M	3BR17EC190	Ashwatha Narayana	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
26	Amulya B L	3BR17EC004		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
27	Harshita H M	3BR17EC049		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
28	Divya M	3BR17EC032		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
29	M Shreya	3BR17EC085	Miss. Sowbhagya	Telecom Technology	BSNL, Ballari
30	Manjula	3BR17EC096		Telecom Technology	BSNL, Ballari
31	Rohini k	3BR17EC130		Telecom Technology	BSNL, Ballari
32	Ramya Kulkarni	3BR17EC126		Telecom Technology	BSNL, Ballari
33	Dadapeer p	3BR17EC191	Dr V C Patil	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
34	Vaishnavi gupta.P	3BR17EC173		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
35	Shaik Mubeen Taj	3BR17EC185		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
36	Shoaib ruhan	3BR17EC151		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
37	Keerthana.T	3BR17EC074	Mr.Prabhakar	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
38	Kavitha.G	3BR17EC073		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
39	Kapu Sumanth Kumar Reddy	3BR17EC071		IoT with Emedded Systems	Celestial V Solutions, Bangalore
40	Aparna.J	3BR17EC009	Manjunath G	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
41	AP Manasa	3BR17EC001		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
42	K Vasudha	3BR17EC067		Telecom Technology	BSNL, Ballari
43	B Madhu Shekar	3BR17EC016		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
44	Divya Gani	3BR17EC031	Mr. Raymond I	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
45	Gayathri G (No Certificate)	3BR17EC045		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
46	Shravani b	3BR17EC152		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
47	Teja K B	3BR17EC164		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
48	Gadela Suneha	3BR17EC042	Dr Sadyojatha	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
49	Anushri	3BR17EC008		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore

SL. No	Name of the student	USN	Name of the Project Guide	Title of the Internship	Name of the Firm
50	Sushma S	3BR17EC160	Dr.Sadyojatha	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
51	Sushma M	3BR17EC159		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
52	Ashwini R Sangam	3BR17EC012	Manjunath G	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
53	Impana D M	3BR17EC055		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
54	D G Sindhu	3BR17EC025		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
55	TIRUMALESH N K	3BR17EC166	Mr.Ashwatha Narayana	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
56	Tuggali Aruna	3BR17EC167		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
57	Shirisha B S	3BR17EC148		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
58	SUNAGARA RAKESHA	3BR17EC157		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
59	Mohammed Muqthiar Ahamed	3BR17EC103	Mr.Mallikarjuna	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
60	Muhammad Riza K	3BR17EC108		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
61	ANUSHA.N	3BR17EC006		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
62	Mohammed Baaqir Basith R	3BR17EC102		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
63	Gadikan Jyothi (No Certificate)	3BR17EC043	Dr U Eranna	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
64	H Yasaswini (No Certificate)	3BR17EC050		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
65	Gurrapu Niharika (No Certificate)	3BR17EC046		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
66	Jayasurya K (No Certificate)	3BR17EC057		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
67	RAJESHWARI PRIYADARSHINI	3BR17EC124	Dr.Naseeruddin	Student Management System	BITM, Ballari
68	SANA SUMAIYA	3BR17EC141		Student Management System	Qspiders Campus Connect, Bangalore
69	DEEPTHI NS	3BR17EC028		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
70	Mohammed Owais K	3BR17EC104		ATM, management Systems	Qspiders Campus Connect, Bangalore
71	REVAN KUMAR INDI	3BR17EC128	Mrs.Nilam	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
72	MEGHA SK	3BR17EC099		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
73	MEDA LIKHITHA	3BR17EC098		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
74	MANISH D	3BR17EC091		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore

SL. No	Name of the student	USN	Name of the Project Guide	Title of the Internship	Name of the Firm
75	Ravi Teja Kuruba	3BR17EC127	Mr.Hemanth Kumar K	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
76	Mohammad Thoseef D	3BR17EC101		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
77	Md Khaja Owesh K	3BR17EC097		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
78	Mantha Rathan Sai	3BR17EC095		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
79	RAHIMUNNISA NAHEEN K	3BR17EC066	Mrs.Nilam	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
80	S ANEESA BEGUM	3BR17EC131		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
81	Fouzia Nikhath	3BR17EC035		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
82	Pavan A	3BR18EC415	Dr. Naseeruddin	Technology Trained on HTML, CSS, JS, PHP and	Renosys Automation, Rajasthan
83	Sushma Singh B	3BR18EC419		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
84	Shilpa	3BR17EC147		Telecom Technology	BSNL, Ballari
85	Vandana DC	3BR17EC175		Telecom Technology	BSNL, Ballari
86	Jonnalaggada sowmya	3BR17EC058	Mr. William Thomas	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
87	Heraimatam shruthi	3BR17EC053		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
88	Chalapala vandana	3BR17EC024		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
89	Anusha.m	3BR17EC005		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
90	Neha Raghavendra	3BR17EC113	Mrs.Renuka Sagar	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
91	W Sanjana	3BR17EC179		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
92	Shivashankargouda L patil	3BR17EC149		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
93	V Shyam Babu	3BR17EC170		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
94	Manish Kumar Singh	3BR17EC092	Mr.D R Premachand	Telecom Technology	BSNL, Ballari
95	Sandeep Singh	3BR17EC142		Telecom Technology	BSNL, Ballari
96	Kowshik M	3BR17EC078		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
97	Manoj K N	3BR17EC094		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
98	DAMMURU VIJAYA RAGHAVENDRA	3BR17EC026	Mr.Sagar T V	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
99	P. AKSHAY RAGHOTHAM	3BR17EC117		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore

SL. No	Name of the student	USN	Name of the Project Guide	Title of the Internship	Name of the Firm
100	JUNAID SALMAN	3BR17EC060	Mr.Sagar P V	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
101	DUDEKULU FARHANA BEGUM	3BR17EC033		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
102	Samyuktha.S	3BR17EC135	Mrs. Swetha N	Telecom Technology	BSNL, Ballari
103	S.Thejashvini	3BR17EC138		Telecom Technology	BSNL, Ballari
104	Vennela.V	3BR17EC177		Telecom Technology	BSNL, Ballari
105	M.Sinduja	3BR17EC087		Telecom Technology	BSNL, Ballari
106	Belaganti Sai Swetha	3BR17EC017	Dr Abdul Latheef	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
107	Shaik Ananashath	3BR17EC144		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
108	Kappadi Rachana	3BR17EC070		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
109	V. Meghana Padmashali	3BR17EC100		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
110	J Dilshad Banu	3BR17EC056	Dr Abdul Latheef	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
111	K. Akhila	3BR17EC061		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
112	J Archana	3BR17EC011		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
113	Amara Naaz	3BR17EC003		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
114	Mude Prathap Naik	3BR17EC107	Mr.Fareduddin	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
115	M.Sai Priya	3BR17EC084		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
116	Nandini.P	3BR17EC109		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
117	S Sohel	3BR17EC137		Telecom Technology	BSNL, Ballari
118	Girija K	3BR18EC408	Mr.Prabhakar	Python with Machine Learning (ML)	Karunadu Technologies Pvt., Harish N.
119	Shailaja C	3BR18EC417		Python with Machine Learning (ML)	Karunadu Technologies Pvt., Harish N.
120	Bindu Madhavi S	3BR18EC403		Python with Machine Learning (ML)	Karunadu Technologies Pvt., Harish N.
121	Madhura A	3BR18EC411		Python with Machine Learning (ML)	Karunadu Technologies Pvt., Harish N.
122	Manjunatha N	3BR18EC413	Mr.Srikanth K M	Python with Machine Learning (ML)	Karunadu Technologies Pvt., Harish N.
123	Lingesh Kumar K	3BR18EC410		Python with Machine Learning (ML)	Karunadu Technologies Pvt., Harish N.
124	K S Ganesh	3BR18EC406		Python with Machine Learning (ML)	Karunadu Technologies Pvt., Harish N.

SL. No	Name of the student	USN	Name of the Project Guide	Title of the Internship	Name of the Firm
125	Mailara K	3BR18EC412		Python with Machine Learning (ML)	Karunadu Technologies Pvt., Harish N.
126	C Mukunda	3BR17EC022	Dr Sadyojatha	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
127	C Jayanth	3BR17EC020		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
128	Ganesh D M	3BR17EC044		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
129	Ajith P	3BR17EC002		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
130	MANASA. K	3BR17EC089	Mr.Vishnu kanth. K	Telecom Technology	BSNL, Ballari
131	PRIYANKA. B	3BR17EC122		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
132	PUNAGANDLA KARTHEEK	3BR17EC123		Telecom Technology	BSNL, Ballari
133	NETYAM BHARATH KUMAR	3BR17EC114		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
134	Bhargav.M	3BR17EC018	Mr.Vinaykumar J	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
135	Hima vamshi	3BR17EC054		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
136	Challa sai prakash	3BR17EC023		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
137	NAVEEN G R	3BR18EC414	Mr.Ulagnathan J	A Hang man game using Python	Qspiders Campus Connect, Bangalore
138	Goudara Pavan Kumar	3BR18EC409		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
139	SUDHAKAR S N	3BR18EC418		Python with Machine Learning (ML)	Karunadu Technologies Pvt., Harish N.
140	DAVINTI BHARATH REDDY	3BR18EC404		Python with Machine Learning (ML)	Karunadu Technologies Pvt., Harish N.
141	Poornima Heroor	3BR17EC120	Mrs.Nayana	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
142	Nishantha A R	3BR17EC116		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
143	M Shruthi	3BR17EC086		Telecom Technology	BSNL, Ballari
144	S Hepzibha	3BR17EC132		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
145	Boya Mounika	3BR17EC019	Mr.William Thomas	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
146	Cm Prashanti	3BR17EC021		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
147	K.N.Bhavya	3BR17EC064		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
148	H M Meghana	3BR17EC048		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
149	AISHWARYA SINGH. D	3BR18EC400		Telecom Technology	BSNL, Ballari

SL. No	Name of the student	USN	Name of the Project Guide	Title of the Internship	Name of the Firm
150	GAYATHRI. V	3BR18EC407	Mrs. Prathiba S	Telecom Technology	BSNL, Ballari
151	DEENAVANI. U	3BR18EC405		Telecom Technology	BSNL, Ballari
152	RAJESHWARI. V	3BR18EC416		Telecom Technology	BSNL, Ballari
153	Divya	3BR17EC187	Mr.Ambrayya	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangaore
154	B Vani	3BR17EC176		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
155	Pooja H	3BR17EC189		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
156	V Shreya patil	3BR17EC171		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
157	Kalyan T	3BR17EC069	Mr. Ranjit Pyati	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
158	Karthik K	3BR17EC072		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
159	TIRUMALA REDDY B H	3BR17EC165		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
160	Vimala P	3BR17EC178	Mrs.Shilpa K R	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
161	Smita Jagadal	3BR17EC155		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
162	Balamma	3BR18EC402		Telecom Technology	BSNL, Ballari
163	Swathi B	3BR17EC161		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangaore
164	SAMREEN TAJ	3BR17EC421	Mr.Srikanth	Telecom Technology	BSNL, Ballari
165	ARIFA BANU	3BR17EC404		Telecom Technology	BSNL, Ballari
166	Mohammed Gouse B	3BR17EC411		Telecom Technology	BSNL, Ballari
167	Priyanka Y B	3BR16EC102		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
168	PAVITHRA U	3BR17EC119	Mrs.Simontiny Roy	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
169	M Indu	3BR17EC081		Telecom Technology	BSNL, Ballari
170	Bhojaraju moka	3BR17EC106		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
171	S.Shilpa Sree	3BR17EC136		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
172	MOHAMMED SHOAIB SHAIKH	3BR17EC105	Mr.Mallikarjuna	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
173	G B SUNDEEP KUMAR	3BR17EC036		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
174	Kiran B S	3BR17EC188		Python with Machine Learning (ML)	Karunadu Technologies Pvt., Harish N.

SL. No	Name of the student	USN	Name of the Project Guide	Title of the Internship	Name of the Firm
175	Yerragunta pavan kumar	3BR17EC181	Dr V C Patil	Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
176	Yogesh C	3BR17EC182		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
177	Sai Shabreesh	3BR17EC174		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
178	Sharana basappa	3BR17EC146		Python, Python programming and Datasturcture Qspiders Campus Connect, Bangaore	Qspiders Campus Connect, Bangalore
179	Deepak Sharma K M	3BR16EC029	Mr.Vishnu Kanth Karwa	Telecom Technology	BSNL, Ballari
180	M Narasimha	3BR16EC069		Telecom Technology	BSNL, Ballari
181	Sunil Choudary R	3BR16EC137			BSNL, Ballari
182	Sai Bharath M V	3BR16EC119		Vending Machine based on Emedded and IoT	Inventeron Technologies and Business Solutions
183	Nirmala. M	3BR15EC058	Mr.Hemanth Kumar K	Telecom Technology	BSNL, Ballari
184	Pallavi	3BR17EC413		Telecom Technology	BSNL, Ballari
185	Pavitra. K	3BR15EC079		Telecom Technology	BSNL, Ballari
186	K.Tarun govind	3BR17EC409		Telecom Technology	BSNL, Ballari
187	K.Sowmya	3BR16EC051	Mrs.Swetha N	Python Web Development	Gudluri Venu Software India Pvt., Ltd.,
188	Akash T M	3BR16EC005		Telecom Technology	BSNL, Ballari
189	Masineni Sri Harsha	3BR16EC072		Python Web Development	Gudluri Venu Software India Pvt., Ltd.,
190	N Praveen	3BR14EC087		Telecom Technology	BSNL, Ballari
191	Rajashekar Desai	3BR17EC419	Mr.Shivakuamr K S	Telecom Technology	BSNL, Ballari
192	Prabhakara P	3BR17EC416		Telecom Technology	BSNL, Ballari
193	Bharat kumar C L	3BR17EC408		Telecom Technology	BSNL, Ballari
194	Sharanappa	3BR17EC424		Telecom Technology	BSNL, Ballari
195	SHAIK BABA FAKRUDDIN	3BR17EC145		Telecom Technology	BSNL, Ballari
196	TAPAL KHALEEL UR REHAMAN	3BR17EC163		Telecom Technology	BSNL, Ballari

BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT, BALLARI

ELECTRICAL & ELECTRONICS ENGINEERING

LIST OF STUDENTS OF B.E. 8TH SEMESTER FOR THE ACADEMIC YEAR 2020-21

A & B-Section INTERNSHIP LIST

Sl.No	USN	Name of the student	Title	Company	Date	Guide
1	3BR14EE050	M CHAITANYA SHIVAKUMAR	STUDY OF 110/33/11KV RECEIVING &DISTRIBUTION	GANGAVATHI SUBSTATION	20-04-2021	Mr. MD ANWAR
2	3BR15EE045	MD. ARIF B	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Prof.Sujatha D
3	3BR15EE049	MISBA FATHIMA	PYTHON AND DATA STRUCTURES	Q Spiders	01-03-2021	Mr.Gangadhara.M
4	3BR15EE058	PREETHAM GUPTA P G	SOLAR POWER PROJECTS PRIVATE LIMITED	KOPPAL	02-04-2021	Prof.Sujatha D
5	3BR16EE006	AMRUTHA PUJAR	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	30-07-2020	Prof.Nandini Patil
6	3BR16EE033	K SANDEEP	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Prof.Nandini Patil
7	3BR16EE034	LAKSHMI N	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Prof.Sujatha D
8	3BR16EE037	M NAGAMONICA	STUDY OF 110/33/11KV RECEIVING &DISTRIBUTION	GANGAVATHI SUBSTATION	20-04-2021	20-04-2021
9	3BR16EE045	MOHAMMED YASEEN B	SOLAR POWER PROJECTS PRIVATE LIMITED	KOPPAL	02-04-2021	Prof.Sujatha D
10	3BR16EE052	NITHIN KUMAR	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Prof.Sujatha D
11	3BR16EE055	PAVAN KALYAN M	SOLAR POWER PROJECTS PRIVATE LIMITED	KOPPAL	02-04-2021	Prof.Sujatha D
12	3BR16EE065	RAHUL JADHAV L	SOLAR POWER PROJECTS PRIVATE LIMITED	KOPPAL	02-04-2021	Prof.Nandini Patil
13	3BR16EE075	SAHANA P M	SOLAR POWER PROJECTS PRIVATE LIMITED	KOPPAL	02-04-2021	B Shashidhara
14	3BR16EE085	SURENDRA BABU	SOLAR POWER PROJECTS PRIVATE LIMITED	KOPPAL	02-04-2021	B Shashidhara
15	3BR16EE089	SWATHI K K	SOLAR POWER PROJECTS PRIVATE LIMITED	KOPPAL	02-04-2021	B Shashidhara
16	3BR16EE091	TARUN SINGH J RANGAWALE	PYTHON AND DATA STRUCTURES	Q Spiders	01-03-2021	Prof.Nandini Patil
17	3BR16EE095	VADDARA PRASHANTHI	STUDY OF 110/33/11KV RECEIVING &DISTRIBUTION	GANGAVATHI SUBSTATION	20-04-2021	Prof.Nandini Patil
18	3BR16EE096	VADIYAR SIDDESHWARA	STUDY OF 110/33/11KV RECEIVING &DISTRIBUTION	GANGAVATHI SUBSTATION	20-04-2021	Mrs farzana
19	3BR16EE098	VEERESHA G	STUDY OF 110/33/11KV RECEIVING &DISTRIBUTION	GANGAVATHI SUBSTATION	20-04-2021	Mr RAGHAVENDRA R M
20	3BR17EE001	A AYESHA SIDDIQUA	ELECTRICAL DESIGN	Prinston Smart Engineers	01-04-2021	Dr. B. S. Khened
21	3BR17EE002	AAMIR ALI	HYRDO POWER GENERATION	HAMPI POWER HOUSE	08-03-2021	Dr. B. S. Khened
22	3BR17EE004	AISHWARYA N	PYTHON AND DATA STRUCTURE	Q Spiders	31-03-2021	Dr. B. S. Khened
23	3BR17EE005	AJAY KUMAR D	STUDY OF 110/33/11KV RECEIVING &DISTRIBUTION	GANGAVATHI SUBSTATION	20-04-2021	Dr. B. S. Khened
24	3BR17EE006	AKSHITHA B	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Dr. B. S. Khened
25	3BR17EE007	AMRUTHA REDDY	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Dr. B. S. Khened
26	3BR17EE008	ARCHANA H	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Dr. Sharana Reddy
27	3BR17EE009	ASHWINI KUPPASAGOUDAR	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	
28	3BR17EE010	AYESHA SIDDIQUA	PYTHON AND DATA STRUCTURE	Q Spiders	31-03-2021	Dr. Sharana Reddy
29	3BR17EE011	B BHAVANI	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Dr. B. S. Khened
30	3BR17EE013	B VINAY KRISHNA	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2021	Mr Kamal Kishore
31	3BR17EE015	BASUTHKAR SAI SANTHOSH RAO	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Dr. SHARAN REDDY
32	3BR17EE017	CHANDANA M	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Dr. Raghavendra. P
33	3BR17EE018	CHANNABASAVA T	PYTHON AND DATA STRUCTURES	Q Spiders	31-03-2021	Dr. Raghavendra. P
34	3BR17EE019	CHIPPAGIRI GUNASANDHYA	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Dr. Raghavendra. P
35	3BR17EE021	DEEKSHITH Y	STUDY OF 110/33/11KV RECEIVING &DISTRIBUTION	GANGAVATHI SUBSTATION		
36	3BR17EE022	DEEPAK ANAND DOLEKAR	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Dr. Raghavendra. P
37	3BR17EE023	DEEPIKA G SOLANKI				
38	3BR17EE024	DEEPTHI	PYTHON AND DATA STRUCTURES	Q Spiders	31-03-2021	Dr. Abdul khadar A
39	3BR17EE025	G ANITHA LAKSHMI	PYTHON AND DATA STRUCTURES	Q Spiders	31-03-2021	Dr. B. S. Khened
40	3BR17EE026	G DIVYA	PYTHON AND DATA STRUCTURES	Q Spiders	31-03-2021	Dr. Abdul khadar A
41	3BR17EE027	G K SAI HARSHITHA JYOTHI	STUDY OF 110/33/11KV RECEIVING &DISTRIBUTION	GANGAVATHI SUBSTATION	20-04-2021	Dr. Abdul khadar A
42	3BR17EE028	MANOHARA G	STUDY OF 110/33/11KV RECEIVING &DISTRIBUTION	GANGAVATHI SUBSTATION	20-04-2021	Dr. Abdul khadar A
43	3BR17EE029	GANESH K	STUDY OF 110/33/11KV RECEIVING &DISTRIBUTION	GANGAVATHI SUBSTATION	20-04-2021	Dr. Abdul khadar A
44	3BR17EE030	ARUNKUMARI H	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Mr K. Narasimhulu
45	3BR17EE033	H SANDHYA	'220/110KV RS Sub Station Allipur''	ALLIPURA SUBSTATION	01-09-2020	Mr K. Narasimhulu
46	3BR17EE034	JAYALAKSHMI	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Mr K. Narasimhulu
47	3BR17EE035	JEEVARGI RAGHAVENDRA KUMAR	Data Analysis and Visualization on Google Play Store App Dataset	Q Spiders	31-03-2021	Mr K. Narasimhulu
48	3BR17EE036	JYOTHI P	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Mr K. Narasimhulu
49	3BR17EE037	K AMRUTHA	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Mr K. Narasimhulu
50	3BR17EE038	K ANURADHA	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Mrs Arathi P.B
51	3BR17EE039	K M RADHA	EDGE TECNOLOGY		01-09-2020	Mrs Arathi P.B
52	3BR17EE040	K R KAVYA	HYRDO POWER GENERATION	HAMPI POWER HOUSE	08-03-2021	Mrs Arathi P.B
53	3BR17EE041	K SHILPA	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Mrs Arathi P.B
54	3BR17EE042	KALYAN KUMAR	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Mrs Arathi P.B
55	3BR17EE043	KARTHIK B	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Mrs Arathi P.B
56	3BR17EE045	KORI BASAVARAJ	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Mr Kamal Kishore
57	3BR17EE046	LAVANYA K	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Mr Kamal Kishore
58	3BR17EE047	M HEMALATHA	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Mr Kamal Kishore
59	3BR17EE048	SHYMALA M	HYRDO POWER GENERATION	HAMPI POWER HOUSE	08-03-2021	Mr. SHRIDHAR S M
60	3BR17EE049	MAHESH	SOLAR POWER PROJECTS PRIVATE LIMITED	Yerangaligi ballari	24-04-2021	Mr Kamal Kishore
61	3BR17EE050	MANOJ KUMAR NS	ELECTRICAL DESIGN	Prinston Smart Engineers	31-03-2021	Mr Kamal Kishore

62	3BR17EE051	MD. MUDDASSIR	PYTHON AND DATA STRUCTURES	Q Spiders	31-03-2021	Mr. SHRIDHAR S M
63	3BR17EE052	MOHAMMED HAARIS	HYRDO POWER GENERATION	HAMPI POWER HOUSE	08-03-2021	Mr. Shashidhara B
64	3BR17EE053	MOHAMMED MOHSEEN B	PYTHON AND DATA STRUCTURES	Q Spiders	31-03-2021	Mr. SHRIDHAR S M
65	3BR17EE054	MOHAMMED SHAKEEL AHMED	HYRDO POWER GENERATION	HAMPI POWER HOUSE	08-03-2021	Mr Kamal Kishore
66	3BR17EE055	MOHAMMED UZAIF	STUDY OF 110/33/11KV RECEIVING &DISTRIBUTION	GANGAVATHI SUBSTATION	20-04-2021	Mr.Shridhar S M
67	3BR17EE057	MONIKA D	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Mr.Shridhar S M
68	3BR17EE060	NAGARATNA	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Mrs PARVATHI
69	3BR17EE061	NAVEEN KUMAR RATHOD R	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Mrs PARVATHI
70	3BR17EE062	NAVEENKUMAR U	PYTHON AND DATA STRUCTURE	Q Spiders		Mrs PARVATHI
71	3BR17EE063	NEELAGANGA B B	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Mrs PARVATHI
72	3BR17EE064	NETESH T	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Mrs PARVATHI
73	3BR17EE065	NIKHIL SAI S	STUDY OF 110/33/11KV RECEIVING &DISTRIBUTION	GANGAVATHI SUBSTATION	20-04-2021	Mrs PARVATHI
74	3BR17EE067	PRAJAKTHA MALLAPPA PUJARI	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Mr. MD ANWAR
75	3BR17EE068	PRAKRUTHI P G	'HANGMAN GAME''	Q Spiders	16-08-2021	Mr. MD ANWAR
76	3BR17EE071	PRITHVIRAJ T	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Mr. MD ANWAR
77	3BR17EE072	CHETAN R	PYTHON AND DATA STRUCTURE	Q Spiders	01-03-2021	Mr. MD ANWAR
78	3BR17EE073	RAHUL U BULLA	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Mr. MD ANWAR
79	3BR17EE075	RAJASHEKAR N	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2021	Mr.Vijyakrishna M
80	3BR17EE076	RAJESH M	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2021	Mr.Vijyakrishna M
81	3BR17EE077	RANJITHA C V	HYRDO POWER GENERATION	HAMPI POWER HOUSE	08-03-2021	Mr.Vijyakrishna M
82	3BR17EE078	RASHMI H N	GAS INSULATED SUBSTATION	Belagavi	15-03-2021	Mr.Vijyakrishna M
83	3BR17EE079	REKHA V	HYRDO POWER GENERATION	HAMPI POWER HOUSE	08-03-2021	Mr.Harish Kumar G
84	3BR17EE080	S M RENUKA	HYRDO POWER GENERATION	HAMPI POWER HOUSE	08-03-2021	Mr.Harish Kumar G
85	3BR17EE081	REVATHI D	HYRDO POWER GENERATION	HAMPI POWER HOUSE	08-03-2021	Mr.Harish Kumar G
86	3BR17EE082	ROOHINAAZ V	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Mr.Harish Kumar G
87	3BR17EE083	ROOPA GHORPADE	STUDENT MANAGEMENT SYSTEM USING PYTHON	Q Spiders	01-03-2021	Mr.Harish Kumar G
88	3BR17EE085	S SUJATHA				
89	3BR17EE086	SAMREEN NAWAZ	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Mr. Santosha B M
90	3BR17EE087	SANDHYA B	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Mr. Santosha B M
91	3BR17EE088	SHAGUFTA BEGUM	ELECTRICAL DESIGN	Q Spiders	16-08-2021	Mr. Santosha B M
92	3BR17EE089	SHAIK AFREEN	PYTHON AND DATA STRUCTURES	Q Spiders	16-08-2021	Mr. Santosha B M
93	3BR17EE090	M S SHARATH	ELECTRICAL DESIGN	Q Spiders	16-08-2021	Mr. Santosha B M
94	3BR17EE092	SHRAVANI N	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2021	Mr. Santosha B M
95	3BR17EE094	SIMRAN	PYTHON AND DATA STRUCTURES	Q Spiders	16-08-2021	Mrs. P. SARALA
96	3BR17EE095	SRI LAXMI	HYRDO POWER GENERATION	HAMPI POWER HOUSE	08-03-2021	Mrs. P. SARALA
97	3BR17EE097	SUBHASH CHANDRA PATEL M	ELECTRICAL DESIGN	Prinston Smart Engineers	01-03-2021	Mrs. P. SARALA
98	3BR17EE098	SUDHARSHAN REDDY B	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2021	Mrs. P. SARALA
99	3BR17EE099	SUHEENA NAAZ	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2021	Mrs. P. SARALA
100	3BR17EE100	SUJITH L	ELECTRICAL DESIGN	Prinston Smart Engineers	01-03-2021	Mrs. P. SARALA
101	3BR17EE101	SULEMAAN SHEIKH	220KV RECEIVING SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Mr.vijay kumar
102	3BR17EE103	H.K. SUSHMA				
103	3BR17EE104	SYED KHADAR BASHA QUADRI	SOLAR POWER PROJECTS PRIVATE LIMITED	Ballari	24-02-2021	Y.KAMAL KISHORE
104	3BR17EE105	MANASA T	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Mr.vijay kumar
105	3BR17EE106	T. NARASIMHA PRASAD	STUDY OF 110/33/11KV RECEIVING &DISTRIBUTION	GANGAVATHI SUBSTATION	20-04-2021	Mr.vijay kumar
106	3BR17EE107	T SUPRIYA	PYTHON AND DATA STRUCTURES	Q Spiders	16-08-2021	Mr.vijay kumar
107	3BR17EE108	THIPPAMMA A	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2020	Mrs.Pushpalatha
108	3BR17EE109	UMAR FAROOQ	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2021	Mrs.Pushpalatha
109	3BR17EE110	UMME SALMA SHAIKH	PYTHON AND DATA STRUCTURES	Q Spiders	16-08-2021	Mrs. PUSHPALATHA
110	3BR17EE111	V M NANDISH	PYTHON AND DATA STRUCTURES	Q Spiders	16-08-2021	Mrs. PUSHPALATHA
111	3BR17EE113	VAISHNAVI M CHAVAN	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2021	Mrs. PUSHPALATHA
112	3BR17EE115	VENKATESH KUMAR NAIK M R	SOLAR POWER PROJECTS PRIVATE LIMITED	Ballari	24-02-2021	Mrs. PUSHPALATHA
113	3BR17EE116	VIDYASHREE D H	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2021	Mrs. SHANTALA H
114	3BR17EE117	VIGNESH WADIYAR	PYTHON AND DATA STRUCTURES	Q Spiders	16-08-2021	Mrs. SHANTALA H
115	3BR17EE118	VIJAY KUMAR	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2021	Mrs. SHANTALA H
116	3BR17EE119	VISHNU E M	SOLAR POWER PROJECTS PRIVATE LIMITED	Ballari	24-02-2021	Mrs. SHANTALA H
117	3BR17EE120	WILFRED JOSEPH W	SOLAR POWER PROJECTS PRIVATE LIMITED	Ballari	24-02-2021	Mrs. SHANTALA H
118	3BR17EE121	YASHASWINI U	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2021	
119	3BR17EE122	YASMEEN	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	01-09-2021	Mr CHANDAN K R
120	3BR17EE123	ZEENATH AFROOZ	PYTHON AND DATA STRUCTURES	Q Spiders	16-08-2021	Mr CHANDAN K R
121	3BR17EE414	M GURUNATH	SOLAR POWER PROJECTS PRIVATE LIMITED	Ballari	24-02-2021	Mr. Shashidhara B
122	3BR17EE423	MADHU E	SOLAR POWER PROJECTS PRIVATE LIMITED	Ballari	24-02-2021	Mr. Shashidhara B
123	3BR17EE437	NAVEEN K R S	STUDY OF 110/33/11KV RECEIVING &DISTRIBUTION	GANGAVATHI SUBSTATION	20-04-2021	Mr RAGHAVENDRA R M
124	3BR17EE438	NAVEEN KUMAR N V	SOLAR POWER PROJECTS PRIVATE LIMITED	Ballari	24-02-2021	Mr.Vijyakrishna M
125	3BR17EE440	PAVANKUMAR B JORAPUR	SOLAR POWER PROJECTS PRIVATE LIMITED	Ballari	24-02-2021	Mr.Vijyakrishna M
126	3BR18EE400	ABDULLA	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Mr CHANDAN K R
127	3BR18EE401	DASARA MAHESHA	STUDY OF 110/33/11KV RECEIVING &DISTRIBUTION	GANGAVATHI SUBSTATION	20-04-2021	Mr CHANDAN K R

128	3BR18EE402	GADILINGAPPA KURUBARA				
129	3BR18EE403	GANESH NAIK L R	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Mr CHANDAN K R
130	3BR18EE405	JAFFER SADIQ ALI	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Mrs RAJYA LAKSHMI
131	3BR18EE406	KAVITHA	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Mrs RAJYA LAKSHMI
132	3BR18EE407	LOKESH NAIK V S	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Sep-20	Mrs RAJYA LAKSHMI
133	3BR18EE408	MANJU NAIK R	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Aug-20	Mrs RAJYA LAKSHMI
134	3BR18EE409	MOINUDDIN	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Aug-20	Mrs RAJYA LAKSHMI
135	3BR18EE410	MOUNIKA	PYTHON AND DATA STRUCTURES	Q Spiders	31-03-2021	Mrs RAJYA LAKSHMI
136	3BR18EE411	N MAHESH KUMAR	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Aug-20	Mr. Shashidhara B
137	3BR18EE412	NIKHIL C	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Aug-20	Mr. Shashidhara B
138	3BR18EE413	NISHAT ANJUM S	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Aug-20	Mr. Shashidhara B
139	3BR18EE414	PRADEEP VARMA K	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Aug-20	Mr. Shashidhara B
140	3BR18EE415	PURUSHOTTAM T	PYTHON AND DATA STRUCTURE	Q Spiders	01-03-2021	Mr. Shashidhara B
141	3BR18EE416	ROOPA SHREE	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Aug-20	Mr. Shashidhara B
142	3BR18EE418	SUMANTHVARMA K	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Aug-20	Mr. GANGADHAR M
	3BR18EE419	SUNITHA M	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Aug-20	Mr. GANGADHAR M
144	3BR18EE421	USHA RANI	PYTHON AND DATA STRUCTURES	Q Spiders	31-03-2021	Mr. GANGADHAR M
145	3BR18EE422	V MOUNIKA	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Aug-20	Mr. GANGADHAR M
146	3BR18EE423	VANAJAKSHI G N	SOLAR POWER PROJECTS PRIVATE LIMITED	Ballari	24-02-2021	Mr. Shashidhara B
147	3BR15EE080	Sharna kumar p	STUDY OF 220/110/11KV RECEIVING & DISTRIBUTION SUBSTATION	ALLIPURA SUBSTATION	Aug-20	Mr RAGHAVENDRA R M
148	3BR16EE417	Madhu sudhan	STUDY OF 110/33/11KV RECEIVING &DISTRIBUTION	GANGAVATHI SUBSTATION	20-04-2021	Mr RAGHAVENDRA R M

BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT
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8TH SEMESTER INTERNSHIP BATCH LIST 2020-2021

B.No	U.S.N	STUDENTS NAME	Mobile No.	Company/Organization	GUIDE/ SIGN
B1	17CV023	Dilip Kumar M	**8618185134**	L&T, Bengaluru	Mr. Syed Sadat Ali (9449606454)
	17CV026	G R SaiRaviteja	**7411032747**		
	17CV032	Guruprasad P	**6360277760**		
	17CV047	KuppaSwapna Madhuri	**7093519464**		
B2	17CV012	Divya.B	**6361173861**	Construction Management & Training Institute. Jaynagara, Bengaluru.	Mr.Ravichandra A H (7204585122)
	17CV019	Chethan Naik. K	**8152047538**		
	17CV043	Kalavathi. S	**9886052794**		
	17CV049	L Prajwal Kumar	**7899655403**		
B3	17CV008	Anitha Lakshmi V A	**9900603874**	Gruhastra Constructions, Ballari.	Mr. Anil Kumar HM (9900970990)
	17CV029	Geethasree B S K	**8073221120**		
	17CV076	Neha Anjum	**9480715270**		
	18CV423	Sanjayakumara	**9902660099**		
B4	17CV031	Gunda Sai Nithisha	**7780144453**	Sri Srinivas Construction Pvt. Ltd. Ballari.	Mr. Tanu H M (8904977889)
	17CV040	Jyothsna P	**8431829995**		
	17CV073	Nandini Y	**9148235319**		
	17CV125	Swetha B	**7760578851**		
B5	17CV041	Simran K	**7349748725**	Premier Technical Consultants, Ballari.	Mr.Ravichandra A H (7204585122)
	17CV058	Manjula	**7996537238**		
	18CV404	Chethan BM	**7353540031**		
	18CV405	DivyaBai K	**9380716800**		
B6	17CV064	Meghana P	**9731871721**	KMT Constructions, Ballari.	Mr. Basavaraj B (9742921642)
	17CV069	SaiPrabhu M	**7019937857**		
	17CV071	Nagashree	**9148025600**		
	17CV075	Navya J	**9449204694**		

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B.No	U.S.N	STUDENTS NAME	Mobile No.	Company/Organization	GUIDE/ SIGN
B7	17CV057	Manish Kumar	**8540025555**	Premier Technical Consultants, Ballari.	Mr. Syed Sadat Ali (9449606454)
	17CV074	Naveena Hanigi	**9482676465**		
	17CV081	Pankaj Joshi	**9901550639**		
	17CV106	Sujendra Goud M	**7019100164**		
B8	17CV078	Niveditha N	**7625018994**	KPWD Class-I Contractor, Hosapete.	Mr. Narayanappa (9060085104)
	17CV087	Priyanka G	**7760403751**		
	17CV090	Rakshitha D	**9886136964**		
	17CV095	S Vidya Shree	**9113872479**		
B9	15CV038	K Y Rakesh kumar	**8123927654**	National Highways Authority of India (NHAI), Hospete.	Mr. S.V.Patil (9902146056)
	18CV403	Cheluvadi Harish	**8496920416**		
	18CV436	PayarNath	**6005356451**		
	18CV437	Puneet Kumar	**9682322945**		
B10	16CV020	Praveen Kumar G	**9738019173**	Premier Technical Consultants, Ballari.	Dr. T. H Patel (9448056770)
	16CV037	Manjunath	**9481268562**		
	16CV068	Sharana Basavan	**8073047075**		
	16CV081	Udaya Kumar	**9900578131**		
B11	17CV024	Monisha G	**9148342237**	GLS Constructions, Bengaluru.	Miss. Brunda A (9591270373)
	17CV108	T Swathi	**9008410582**		
	17CV115	Vineetha Satyanarayana Siriki	**9110631422**		
	17CV119	Vishalakshi	**7259035377**		
B12	17CV093	Suraj S	**7411797815**	GLS Constructions, Bengaluru.	Mr. Srinivas Pujari (7676306106)
	17CV094	S Surya	**8217690260**		
	17CV122	Yeshwanth M	**7760378237**		
	17CV124	Karthik Patil G	**8970427471**		

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B.No	U.S.N	STUDENTS NAME	Mobile No.	Company/Organization	GUIDE
B13	18CV407	Gireesha K	**8792074257**	Premier Technical Consultants, Ballari.	Mr. Md Khalid S (9008659505)
	18CV408	Gururaj H K	**7829097932**		
	18CV410	Hemantharaj Y	**9901553960**		
	18CV416	Purushottama V	**7090529157**		
B14	17CV080	Panisurya G	**7676859495**	Sandur Manganese & Iron Ore Ltd., Deogiri. Sandur.	Mr. Sagar N S (9738804430)
	17CV082	PolakaYerriswamy	**7680023897**		
	18CV411	Jeelan Bhasha P S	**9482085504**		
	18CV424	Shabarish	**7090383021**		
B15	18CV413	Kavya J	**8095654254**	NMDC, Donimalai. Sandur.	Mr. Narayanappa (9060085104)
	18CV431	Tulasi	**8548892169**		
	18CV432	Uma R	**6360180566**		
B16	17CV017	Bheemesha	**6360736630**	Class-I Contractor, Huvina Hadagali. Vijaya Nagara.	Mr.Md.Haseebulla M (8792222595)
	17CV022	Dattatreya P G	**7022594544**		
	17CV036	Ibrahim Khalil Ulla	**9480650018**		
	17CV045	Kote Sharana Basava	**8217635079**		
B17	16CV045	Netravathi G L	**9353869063**	PWD, Ballari.	Mr. Vinaykumar H (7019230814)
	18CV421	Sahana Nanyapur	**7899639167**		
	18CV425	Shailaja .N	**9480116805**		
	18CV427	Sonali	**8296195425**		
B18	17CV070	MuraliKarthik B M	**8197220388**	GLS Constructions, Bengaluru.	Mr. Sagar N S (9738804430)
	17CV103	Sindhu K	**9900504469**		
	17CV110	Usha Rani G	**8884808328**		
	17CV120	Vishnu P	**9620931883**		

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B.No	U.S.N	STUDENTS NAME	Mobile No.	Company/Organization	GUIDE/SIGN
B19	17CV100	Sharat S Naduvinamani	**6363577915**	GRUHASTRA Constructions, Ballari.	Mrs. Nirmala M V (7349159724)
	18CV400	Anwar Pasha	**8550005592**		
	18CV420	Sadashiva	**8050927818**		
	18CV433	VinayakNavali	**9986226176**		
B20	17CV038	Javeed Pasha	**9902957664**	Nirmithi Kendra, Ballari.	Mr. Shiva Kumar K (8123409580)
	17CV067	Mohammed Noumaan Faisal	**9113920902**		
	17CV068	Mohammed Suhail	**9008098701**		
	17CV099	ShaikYunus Pasha	**7813883364**		
B21	17CV066	Misba Yasmeen	**7892647746**	Aakar Constructions, Ballari.	Mr. Ambreesh (8867239464)
	17CV086	Priyanaka	**7019511419**		
	17CV109	Triveni	**8618575551**		
	18CV422	Sahana S	**9353861684**		
B22	16CV009	Asha H	**8660368337**	Nirmithi Kendra, Ballari.	Mr. Manjunath Swamy
	17CV002	Aishwarya P S	**7676709545**		
	17CV060	Manjunatha G S	**8050909527**		
	17CV116	Vinod Kumar	**9535785636**		
B23	18CV414	Mohammed Sameer B	**7026721189**	Daruka Builders, Siraguppa.	Mr. Srinivas Pujari (7676306106)
	18CV418	Ramesh K	**8147386251**		
	18CV419	Revathi B S	**9164807670**		
	18CV426	Shanthi MB	**8971298575**		
B24	17CV084	Pradeep	**9108197138**	SKANDHANSHI INFRA PROJECTS INDIA Pvt. Ltd. Ballari.	Mr. Md.Haseebulla M (8792222595)
	17CV085	Prahlad	**9632700689**		
	17CV112	Veerabadrappa	**7338161324**		
	18CV428	Sumanth C	**6364253148**		

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B.No	U.S.N	STUDENTS NAME	Mobile No.	Company/Organization	GUIDE/SIGN
B25	17CV098	Santosha	**8152998745**	Prime Constructions, Ballari.	Mr. Basavaraj B (9742921642)
	17CV101	Sheshadri K	**9380197696**		
	17CV427	Raju T	**8861069596**		
	17CV430	Somesh T	**7829373822**		
B26	17CV003	Ajay Kumar S Chavan	**9008245319**	Nirmithi Kendra, Ballari.	Mr. Tanu H M (8904977889)
	17CV004	Akash Pattana Shetty S R	**6360644501**		
	17CV016	Bharathi	**9686399325**		
	17CV018	C Mohammed Touqueer Ahmed	**9739535786**		
B27	17CV013	B.M Kotresh	**9632061924**	National Highways Authority of India (NHAI), Hospete.	Mr. Anil Kumar HM (9900970990)
	17CV079	Paluvuri Ramanjineyulu	**9347269949**		
	17CV092	Balamanikanta S	**7996455590**		
	17CV096	Sai Rahul B.S.	**7892333254**		
B28	17CV011	Aruna Kumar B	**8105049977**	Premier Technical Consultants, Ballari.	Mr. Jayaram Setty
	17CV415	Khuthubuddin	**8151963435**		
	17CV431	Sridhar S	**7026273666**		
	18CV415	Muzamil Hussain K	**8660748185**		
B29	17CV009	Annappa Gouripur	**8951538755**	Revolution Infrastructure, Hospete.	Dr. H. Mahabaleswara (6361287118)
	17CV015	Bhajantri Durugappa	**8861082877**		
	17CV034	Harish Agrahara KS	**9686779038**		
	17CV046	Krantikumar	**9591516520**		
B30	17CV033	Guru Shiva Kumar	**8660635338**	Vastu Vision Builders and Consultancy, Gangavathi.	Mr. Ambreesh (8867239464)
	17CV035	Harsha Hooli	**8050716260**		
	17CV059	Manjunath Chakoti	**9902593393**		
	17CV077	Ningappa	**8095178637**		

B31	17CV030	Goutham Nayak B	**8747973823**	Swati Infrastructure, Hospete.	Mr. S.V.Patil (9902146056)
	17CV061	Manoj B M	**9108984779**		
	17CV104	Sneha	**7760368437**		
	17CV114	Vinay B C	**8105464221**		
B32	17CV054	Maheshwari P	**7483109435**	Smart Civil Solutions, Ballari.	Mr. Vinaykumar H (7019230814)
	18CV401	Avinash K	**8904446455**		
	18CV406	G Manikanta	**7975665285**		
	18CV429	Sunil L A	**8971322216**		
B33	16CV408	Fakruddin B A	**9740151445**	Premier Technical Consultants, Ballari.	Mr. Shiva Kumar K (8123409580)
	17CV065	Mirza Basheer Baig	**8792744154**		
	17CV088	Syed Mohammed Hashir R	**7259299413**		
	18CV417	R S Srideep	**8951435344**		
B34	17CV005	Akbar Hussain	**9590452847**	S.S.S.V.C Engineering & Architects, Sindhanur.	Mr.Md Khalid S (9008659505)
	17CV052	Mahammad Abdul Shoeab	**7892311717**		
	17CV053	Mahammad Riyaz	**7259905474**		
	17CV063	Md Shoaib	**7892504066**		

Internship Coordinator **Head of the Department**

Date: 27.10.2020

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It is here by informed to all the VII Sem students that there project groups and there respective guides have been allotted, further the students are required to meet there guides and discuss about the project work that has to be carried out in VII and VIII sem. The projects should be initiative and analytical must and should, Further you can refer college subscribed Journals for literature survey purpose.

Internship Batch list for the year 2020 – 21

Batch No.	Name of the Student	USN	Student optional area	Alotted faculties (Guide)	Contact No
B1	Shivaprakash M M A Devika Upendra kumar B Sujith John	3BR17ME127 3BR17ME006 3BR17ME144 3BR17ME134	**DESIGN OF SHEETMETAL PART model USING catia v5 SOFTWARE**	Dr. Raju Jadar	7975076581 9380019698 9066991263 7619510850
B2	A Rohith H. Sai Karthik Syeda Taranum Jahan	3BR17ME127 3BR17ME110 3BR17ME140 3BR17ME077	**DESIGN OF 3D MODELLING OF STEAM ENGINE CROSSHEAD**	Prof. Shekar K	8123436418 8050383916 7892199965 9110629155
B3	Bakathatti Saibabu Aravind E V Sai Nikhil Ankush P T	3BR17ME016 3BR17ME012 3BR17ME030 3BR16ME016	**Butterfly Valve model in catia v5**	Prof.B.Jaya Prakash	8073567638 9483815820 7259359990 8550094072
B4	Chandrashekar V Mohammed Zubair Hussian Zibera S. Sanjay	3BR18ME417 3BR18ME469 3BR18ME511 3BR18ME488	Heating, ventilation, and air conditioning	Prof.Pavan B S	7795735260 7338036214 9844402138 7406368609
B5	Aaman Sami Hemanth Raj Ajay Chauhan Kiran B	3BR17ME005 3BR17ME044 3BR17ME008 3BR16ME076	Various Applications of Lubrication & Bearings	Prof.Shivarama Krishna	9572466652 8088388750 9742062900 8152053561
B6	A Bharath K Shiva kUmar Hanumantha K Satish Kumar	3BR17ME001 3BR17ME048 3BR17ME041 3BR17ME122	DESIGN OF PART MODEL USING CATIA V5	Dr.Raghavendra Joshi	8217811719 7411961095 8884859652 6360617304
B7	G Rakesh Reddy Amar K Bheema Shankar B Girish Joshi	3BR17ME032 3BR17ME011 3BR17ME019 3BR17ME036	MANUFACTURING OF GLASS	Prof.Srinivasulu V	8150801752 8310090301 9535435307 7411714419
B8	Shivachandra Pramod K Kondaiah A T Kedar	3BR16ME197 3BR17ME050 3BR17ME055 3BR17ME052	3D MODELLING OF BUTTERFLY VALVE USING CATIAV5"	Prof.Gavisiddesha P	9535710451 8050742597 8861840971 8197903736
B9	Rahul P Marriswamy K R Akhil K Sai Pavan K C	3BR16ME110 3BR16ME093 3BR16ME008 3BR16ME142	Theoretical Analysis of Stress and Design of Piston Head using CATIA &ANSYS	Prof.B.Jaya Prakash	8618412299 8073101805 9108220100 6363975776
B10	R Darshan Nitin Kumar C A	3BR17ME094 3BR17ME084	BENEFICATION OF IRON ORE	Prof.Sreeharsha B T	7349041192 9380056921

	Manikanta Pradeep Kumar S	3BR17ME066 3BR17ME092			9113888372 9353088910
B11	Ramanna Gouda Pavan Kumar E Pradeep Siddarth M C	3BR17ME100 3BR17ME088 3BR17ME091 3BR17ME058	SNEHA GLASSICS TUFF	Prof.Ravi G	8970236782 9902765832 9980465539 9481368579
B12	S Jafar Sadiq Rakesh Gouda V Mohammed Shakir Rayees Ahmed Khan	3BR17ME107 3BR17ME098 3BR17ME061 3BR17ME104	BMM PELLET PLANT	Prof.Manjunath E	9060358646 8792053100 8495057077 8884976591
B13	T Ravi Kumar S Arjun P Sai Teja Sai Mahanth	3BR17ME103 3BR17ME106 3BR17ME114 3BR17ME112	MANUFACTURING OF GLASS	Prof.Raghavendra setty G	7892723522 9972832572 7010980472 8123122999
B14	Neeraj Kumar Singh Manish Kumar Pandey Sagar Kurali Sanketh Pal	3BR17ME083 3BR17ME067 3BR17ME109 3BR17ME120	CAD/CMD TOOLS IN AUTOCAD 3D	Dr. Umesh M Daivagna	8660833235 8496096379 7829631959 6360708934
B15	Bhargava Reddy Channabasavanna Gouda Manjunatha gosi B Shivakesava	3BR18ME415 3BR18ME477 3BR18ME456 3BR18ME412	MANUFACTURING OF GLASS	Prof. Dhanunjay Kumar	8884177228 8496811917 9741821869 8310091050
B16	Kollli Hemanth H M Dayanand Karanam shreyas A M Deepak	3BR17ME054 3BR17ME038 3BR17ME051 3BR17ME003	3D MODELLING OF BELT ROLLER SUPPORT USING CATIA V5	Prof.Raghavendra K	9008777297 8050678328 7899677397 8431351351
B17	K Vivek D Basavaraj Darani Kumar S Gagan M	3BR17ME049 3BR17ME024 3BR17ME028 3BR17ME34	3D MODELLING OF BUTTERFLY VALVE USING CATIA V5	Prof.Vijay Kumar B P	9611676167 9945916171 7022390972 6363445446
B18	Nagasuchit S Nitin Krishna K Malapati rohit Kumar Somesh V N	3BR17ME078 3BR17ME085 3BR17ME064 3BR17ME132	DESIGN OF KNUCKLE JOINT USING CATIA	Dr.V.Vekataramana	8884849057 9008701840 9148703223 6360124093
B19	Majid Ahmed Khan Mustq Md Faheem Afzar Shaik Md Muhib	3BR17ME063 3BR17ME076 3BR17ME072 3BR17ME124	DESIGN OF 3D MODELLING OF STEAM ENGINE CROSSHEAD	Prof.Vishnu Prasad	998033660 8861561630 9206675204 9900774176
B20	Rakesh V B Naveen S Batakurki Sachin K A H M Prajwal	3BR17ME099 3BR17ME082 3BR17ME108 3BR17ME002	Butterfly valves	Prof.Manjunath T H	9148498388 8310702891 8197511382 8880551166
B21	Venkatesh N Vinayaka D Vishwanath H Vishwa B M S	3BR17ME150 3BR17ME154 3BR17ME157 3BR17ME158	DESIGN OF PART MODEL USING CATIA V5	Prof.Pavan Kumar B K	9880344881 7204248396 8618432373 9663691815
B22	Sumanth K Vaibhav Kuryal Vinay Kulkarni Yerriswamy	3BR17ME135 3BR17ME146 3BR17ME152 3BR17ME159	DESIGN OF SHEET METAL USING CATIA V5	Dr. Ganesh B	8050338023 9482994465 9632546821 9480914559
B23	Kumar Kalyan Kumar B	3BR18ME445 3BR18ME438	3D MODELLING OF BUTTERFLY VALVE USING CATIA V5	Prof.Raghavendra Kurnool	7795413144 7676754570

	Kudithini Viripakshi	3BR18ME444			9972117960
	Kiran Kumar B	3BR18ME441			9916396612
B24	Gurunath R M	3BR18ME427		Prof.Kalyan Babu	7406327596
	Hagari Lingappa k	3BR18ME429			8971856658
	Rajesh A	3BR18ME484			8317439723
	Ravi	3BR18ME485			8792699417
B25	V.Chiranjeevi	3BR18ME419	HVAC	Prof.Mayur D Pawar	7019875424
	Sajja Venkatesh	3BR18ME490			8747075494
	Md. Saqlain	3BR18ME468			9513259179
	Naveen T	3BR18ME475			9108112866
B26	Siddaraja B K	3BR18ME495	CASTING PROCESS	Prof. Shivakumar.S.Y	8123275930
	Vijay Kumar	3BR18ME506			8880088784
	Md. Shafi	3BR18ME464			9686210335
	Hadapada karthik	3BR18ME428			7022221538
B27	Mahendra K	3BR17ME062	3D MODELLING OF STEAM ENGINE CROSSHEAD USING CATIA V5	Prof.Maharaja Gouda	7996475157
	Gagan Chandu R	3BR17ME033			9916376217
	Pavan Kumar G	3BR17ME086			8951432571
	Pavan U	3BR17ME089			9482413882
B28	Praveer A	3BR17ME093	NATIONAL MINERAL DEVELOPMENT CO-OPERATION, DONIMALAI	Dr.Anil Kumar H M	9449677398
	Santosh K	3BR16ME071			9705768444
	Manjunath B	3BR17ME068			8884301463
	Madhusudan S	3BR17ME059			9113245288
B29	Vinod B	3BR17ME155	CASTING PROCESS	Prof. Venkatesh K C	7899160572
	Sandeep kumar S G	3BR17ME118			9632200448
	Shivu Kumar C	3BR17ME128			9008863565
	Yogesh B	3BR17ME160			9353564161
B30	Nadeem Sultan	3BR18ME461	HEATING VENTILATION AND AIR CONDITIONING (HVAC)	Prof.Md Fayaz	8904717457
	Muzamil M R	3BR18ME460			7975638313
	K Jagadish	3BR18ME436			9845708344
	Imtiyaz G	3BR18ME432			9901231140
B31	Siddaram	3BR17ME130	SNEHA GLASSICS TUFF	Prof.Santosh V Janmatti	9347136208
	Samir Hussain	3BR17ME117			9740879374
	Shaik Nawaz	3BR17ME125			9164456871
	Md. Abdul Khadar	3BR17ME071			7353421691
B32	H Yashwanth Kumar	3BR17ME045	3D MODELLING OF KNUCKLE JOINT USING CATIAV5	Prof.Taranath A	8123686511
	H Basavana Gowda K	3BR17ME040			8951316524
	Hari Krishna	3BR17ME042			9113015881
	Chandramouli SSM	3BR17ME020			7022685842
B33	Md. Nawaj D K	3BR18ME462		Prof. Suraj V Yadahalli	9019059064
	Md. Asif	3BR18ME466			8310943330
	Anitha B	3BR17ME162			8197455874
	B S Latha	3BR18ME411			6364246468
B34	Iqbal S	3BR17ME046	3D MODELLING OF STEAM ENGINE CROSSHEAD USING CATIA V5	Dr.Lakshmikumari	996839622
	Sadiq	3BR17ME060			7892640757
	C H Niteesh	3BR17ME022			7022049010
	Sunil P	3BR17ME136			8310522934
B35	Teju Swaroop	3BR15ME218		Prof. Rajashekar K	8328061108
	M Abhishek	3BR15ME096			9967874100
	Md Wasim Akram	3BR15ME130			9148928870
	Bharath Kumar H C	3BR15ME031			8660146521
B36	Mounesha	3BR18ME416	3D MODELLING OF KNUCKLE JOINT USING CATIAV5	Prof. Banakar Nagaraj	6361049873
	Mekara kavi Raj	3BR18ME476			9886655468
	Udhakara C	3BR18ME497			6360444097
	Mahantesh K	3BR18ME452			7022938482

B37	Ajay Kumar E Vali Prashanth Kumar K Laxminarayana Veeresh M	3BR18ME402 3BR18ME503 3BR18ME448 3BR18ME504	DESIGN OF PART MODEL USING CATIA V5	Dr.Raghavendra Joshi	7259651995 8748943869 9591808051 9380655862
B38	Sireesha V Saroja Surya banu Farath Fareen	3BR17ME126 3BR18ME491 3BR18ME500 3BR17ME077	CATIA V5 FUNDAMENTALS	Dr.Lakshmikumari	8150862248 8197289721 8722495924 9110629155
B39	Darshan Kayadad Samarth Vernekar Sanjay M Suraj Pal	3BR17ME026 3BR17ME115 3BR17ME119 3BR17ME137	DATA ANALYTICS ON RECOGNIZING HANDWRITTEN DIGITS WITH SCIKIT-LEARN	Dr.V.Vekataramana	9148292881 9611919508 9964034047 7996347639
B40	Manjunath V Danraj Kumar V Babu Bharath M Chandra sekhar Reddy	3BR18ME458 3BR18ME420 3BR18ME413 3BR18ME418	3D MODELLING OF STEAM ENGINE CROSSHEAD USING CATIA V5	Dr. Raju Jadar	8971397062 6361790196 8553309154 874605259
B41	Uday Kumar V Sharan Pujar Bharath Kumar Shiv Prabhu A	3BR16ME180 3BR15ME196 3BR16ME029 3BR16ME163	CNC MACHINING	Prof.Raghavendra K	7899928237 9535957614 8105241418 8660470074
B42	Yuvraj G Harisha M Bharath K Jiru Prakash	3BR18ME510 3BR18ME430 3BR18ME414 3BR18ME437	SVE CASTINGS PVT LTD	Dr. Umesh M Daivagna	8123664423 8971877902 7795807950 8331837281
B43	Uttam G Suresh Kumara Mahndra U Raghu B	3BR18ME502 3BR18ME499 3BR18ME454 3BR18ME482	3D MODELLING OF STEAM ENGINE CROSSHEAD USING CATIA V5	Dr. Ganesh B	8495942233 7090308571 9535630925 7353826290
B44	Vikas T Vinay Kumar k Siddarth Yogesh M	3BR17ME151 3BR17ME153 3BR17ME131 3BR17ME161	3D MODELLING OF STEAM ENGINE CROSSHEAD USING CATIA V5	Prof.Manjunath T H	908964649 8105600492 9880255790 9632213248
B45	Gadilingappa Nayakara Roshan Zameer Akash S Sushanth P	3BR18ME422 3BR18ME487 3BR18ME404 3BR18ME501	HOT STRIP MILL	Dr. Anil Kumar H M	9986359488 9844193833 8445833323 8951278796
B46	Khaji Zunaid Ahmed Md Tayab Ali Farak Muaz Ballary Md Asif	3BR18ME440 3BR18ME465 3BR18ME470 3BR18ME451	MANUFACTURING OF GLASS	Prof. Dhanunjay Kumar	7899875594 7760340024 9538622727 7204332409
B47	Pavan Kalyan P Muralidhar V Vishwanath	3BR18ME479 3BR18ME471 3BR18ME508	STUDY ON CASTING PROCESS	Prof. Banakar Nagaraj	9008841999 9743968899 7676405259
B48	S K Md Gouse Samdani Venkatesh B Usama Junaid Syed Md Mohsin	3BR17ME123 3BR17ME149 3BR17ME145 3BR17ME138		Prof.Srinivasulu V	9036755664 7026025602 7019755399 9632122491
B49	G B Madhu Babu Akhil M Srinivas Naidu A Mahendra B M	3BR18ME450 3BR18ME405 3BR18ME496 3BR18ME453	MANUFACTURING OF GLASS	Prof. Sekhar K	7411440870 8123032091 9036912776 7760613515

B50	Kiran Naik Pandurangha P R Kishan B Suvarna Akash Kumar	3BR18ME442 3BR18ME478 3BR18ME486 3BR18ME403	3D MODELLING OF STEAM ENGINE CROSSHEAD USING CATIA V5	Prof.Shivaramakrishna	9110861119 9008500404 9663007195 9113559783
B51	Pradeep U Harshavardhan Reddy P Ajay Kumar Y	3BR18ME480 3BR18ME431 3BR18ME509	casting process in SVE casting	Prof.Pavan Kumar B K	7411569509 8880488849
B52	Abhisheka C Kishore Kumar Jagadish K Kumara K	3BR18ME400 3BR18ME443 3BR18ME435 3BR18ME446	Continous Galvanizing Line	Prof.Mayur D Pawar	8151941627 8095647609 9986990037 9113523745
B53	Akhil Gowda R Nagamurthy K M Sharath Kumar S B Vinod Raj M	3BR17ME403 3BR17ME467 3BR17ME489 3BR17ME508		Prof.Sreeharsha B T	8050771002 7760353871 9845075662 9535848652

HOD
Dr. Y. BASAVARAJ

Project Co-ordinator
Prof. B. VISHNU PRASAD

LIST OF INTERNSHIP FOR THE YEAR- 2020-2021			
SL.No	**USN**	**NAME OF THE STUDENT**	**NAME OF THE ORGANIZATION**
1	3BR19MBA01	A NEELAKANTA	Organization study on The Fertilisers And Chemicals Travancore Limited
2	3BR19MBA02	A PAVAN KUMAR	Organization study on Emami limited
3	3BR19MBA03	AFREEN B	Organization study on Jk cement ltd
4	3BR19MBA04	AISHWARYA BANAGAR	Organization study on Entertainment network india ltd
5	3BR19MBA05	AISHWARYA K	Organization study on Equitas Holdings Ltd.
6	3TR19MBA02	MEDA SHAVIKA	Organization study on Exide industries ltd
7	3TR19MBA03	MEGHA S	Organization study on Eveready industries India ltd
8	3TR19MBA04	MOHAMMAD S	Organization study on Daruka hardware house pvt ltd
9	3TR19MBA05	MUNAWAR JAHA S	Organization study on Gail India pvt Ltd
10	3TR19MBA06	MUSHEER AHMED	Organization study on Gokaldas exports ltd
11	3TR19MBA07	Muzamul M.D	Organizational Study at ABBOTT PVT LTD
12	3BR19MBA06	Akash Gupta	Organization Study on A & M FEBCON LTD
13	3BR19MBA08	Akhila N	Organizational Study at AARVEE DENIMS AND EXPORTS LTD
14	3TR19MBA09	Sri Vidhya Lakshmi	Organizational Study at ACKNIT INDUSTRIES LTD
15	3TR19MBA10	Nandini D	Organizational Study at ACTION CONSTRUCTION EQUIPMENT LTD
16	3BR19MBA09	Ambresh M.G	Organizational Study at AANCHL ISPAT LTD
17	3TR19MBA01	Mehaboob Basha G	Organizational Study at ABB Pvt Ltd
18	3TR19MBA11	Naveen Kumar	Organizational Study at ACTIVE CLOTHING CO. LTD
19	3TR19MBA08	N Pavan Kumar Reddy	Organizational Study at ACC LTD
20	3BR19MBA10	Amith B U	Organizational Study at AARON INDUSTRIES LIMITED
21	3BR19MBA11	AMITHA	BRANDHOUSE RETAIL LIMITED
22	3BR19MBA12	ANGADI BASAVARAJU	BRINDAVAN COMMERCIAL LTD
23	3BR19MBA13	ANJALI	BRITANIA INDUSTRY LIMITED
24	3BR19MBA14	ANURADHA P	C & C CONSTRUCTION LTD
25	3BR19MBA16	ARUN NAYAKA J	C J GELATINE PRODUCT LIMITED
26	3TR19MBA12	NAVEEN KUMAR N S	CALCUTTA SILK MFG.CO LTD
27	3TR19MBA13	NEELGAL NIKHIL KUMAR REDDY	CALEDONIAN JUTE & INDUSTRIES LIMITED
28	3TR19MBA15	OMKRISHNA A	CAMAC COMMERCIAL COMPANY LIMITED
29	3TR19MBA16	P NOMICA	FEDDERS ELECTRIC & ENGINEERING LTD
30	3TR19MBA17	PAVAN KALYAN	FIEM INDUSTRIES LIMITED
31	3BR19MBA17	ASHA B	ADANI ENTERPRISES LTD
32	3BR19MBA18	B KEERTHANA	ADITYA BIRLA CAPITAL LTD
33	3BR19MBA19	BOYA SARDHAR	AJWA FUN WORLD AND RESORT LTD
34	3BR19MBA20	CHITTURI PRAVEEN	ADD LIFE PHARMA COMPANY LIMITED
35	3BR19MBA21	D LAVANYA	ADITYA BIRLA FASHION & RETAIL LIMITED
36	3TR19MBA18	PAVAN KUMAR P MONI	Not submitted
37	3TR19MBA19	PAVANI V	AGIO PAPER AND INDUSTRIES LTD
38	3TR19MBA20	POOJA M	AJOONI BIOTECH LIMITED
39	3TR19MBA21	POOJITHA P	AJANTHA PHARMA LIMITED
40	3TR19MBA22	POONAM JANGID	AGRIMAS CHAMICALS LTD
41	3BR19MBA22	D PRADEEP KUMAR	ASHIRWAD STEELS &INDUSTRIES

42	3BR19MBA23	DEEPTHI N	ARUNA HOTELS LTD
43	3BR19MBA24	DHANUJA SUNKARAVALLI	ARCHIES LTD
44	3BR19MBA25	DHARANI R C	ASHAPURI GOLD ORNAMENTS
45	3BR19MBA26	DURGAPRASAD G	ASHOK LEYLAND LTD
46	3TR19MBA24	PRAVEENA KUMARA H	APTECH LTD
47	3TR19MBA25	PREM TEJ S	ASAHI INDIA GLASS LTD
48	3TR19MBA26	PRIYANKA	ARCHANA SOFTWARE LTD
49	3TR19MBA27	PRIYANKA R V	AQUA LOGISTICS
50	3TR19MBA28	PRUTHVI S	APT PACKAGING LTD
51	3BR19MBA27	DURUGAPPA H	Alkem Laboratories Ltd
52	3BR19MBA28	EDIGA VIJAY KUMAR GOUD	Amara Raja Batteries Ltd
53	3BR19MBA29	EJANTHAKAR DEVI PRASAD	Ambuja Cements Ltd
54	3BR19MBA30	FARAZ KHAN	Amco India Ltd
55	3BR19MBA31	G AKHILESH	Ambalal Sarabhai Enterprises Ltd
56	3TR19MBA29	PUTTAGUNTA PRADEEP	Alok Industries Ltd
57	3TR19MBA30	R G TRIVENI	Alembic Pharmaceuticals Ltd
58	3TR19MBA31	R PRAJVAL GOWDA	Alembic Ltd
59	3TR19MBA32	R RADHA KRISHNA	Akzo Nobel India Ltd
60	3TR19MBA33	R SHRUTHI	Akme Star Housing Finance Ltd
61	3BR19MBA32	G RAGHAVENDRA	B2B Technologies LTD
62	3BR19MBA33	G RAVINDRA	Bajaj Finserv LTD
63	3BR19MBA34	G SRILEKHA REDDY	Axis Bank LTD
64	3BR19MBA35	G TRIVENI	Bharat Petroleum Corporation LTD
65	3BR19MBA36	G VENKAT HARISH	Bajaj Electrical LTD
66	3TR19MBA34	RAGHUMAHA REDDY U	Bharat Heavy Electrical LTD
67	3TR19MBA35	RAJESHWARI M	Bank of India
68	3TR19MBA36	RAKSHIT KUMAR E	Bank of Baroda
69	3TR19MBA37	RAMESHA	Bajaj Consumer Care LTD
70	3TR19MBA38	RAMYA K	Bajaj Auto LTD
71	3BR19MBA37	GADILINGA G	Dabur India Ltd
72	3BR19MBA38	GANDHAM KALYANI	Dalmia Bharat Sugar & Industries Ltd
74	3BR19MBA41	H PAVAN	Deepak Fertilizers & Petrochemicals Corp Ltd
75	3BR19MBA42	H S SUMA	Deccan Cements Ltd
76	3TR19MBA39	RAMYA SHREE D	Delta Corp Ltd
77	3TR19MBA40	RASHMI B	DCM Shriram Ltd / www.shriramfarmsolutions.com
78	3TR19MBA41	RAVI KUMAR	Datamatics Global Services Ltd
79	3TR19MBA42	RAVIKIRAN SHAILENDRA SHEMBEKAR	DCB Bank Ltd
80	3TR19MBA43	RAVIKUMAR A	Dai-ichi Karkaria Ltd
81	3BR19MBA43	H SWETHA	BETA DRUGS LIMITED
82	3BR19MBA44	HANUMATHAPPA B	NIL
83	3BR19MBA45	HANUMESH	NIL
84	3BR19MBA46	HARISH L	BEML LIMITED
85	3BR19MBA47	HARITHA B	BANSWARA SYNTEX LIMITED
86	3TR19MBA44	REKHA B	BANSAL ROOFING PRODUCTS LIMITED
87	3TR19MBA45	RESHMITHA GULLAPALI	BHAGWATI AUTOCAST LIMITED
88	3TR19MBA47	ROSHAN SANJU ABRAHAM	BHANDARI HOSIERY EXPORTS LIMITED
89	3TR19MBA48	S ZIA NAAZ	BHARAT BIJLEE LIMITED
90	3TR19MBA49	SABA KOUSAR	BHARAT GEARS LIMITED
91	3BR19MBA48	HARSHITA	APL METALS LIMITED
92	3BR19MBA49	HEENA AFREEN	ANMOL INDIA LIMITED
93	3BR19MBA50	HONNURUSAB P	APIS INDIA LIMITED

94	3BR19MBA51	HUSSAIN BASHA F	ANJANI SYNTHETICS LIMITED
95	3BR19MBA52	I V NIRMAL	APOORVA LEASING FINANCE AND INVESTMENT COMPANY LIMITED
96	3TR19MBA50	SABITHA	ANDHRA CEMENTS LIMITED
97	3TR19MBA51	SAGAR M T	ANANT RAJ LIMITED
98	3TR19MBA52	SAGAR R	APPOLLO TYRES LIMITED
99	3TR19MBA53	SAHANA R K	ANDHRA PETROCHEMICALS LIMITED
100	3TR19MBA54	SEEMA	ANTARIKSH INDUSTRIES LIMITED
101	3BR19MBA53	IRFAAN HUSSAIN	CIPLA LTD
102	3BR19MBA54	ISHWARYA LAKSHMI KAKUMANI	CITIZEN INFOLINE LTD
103	3BR19MBA55	JAFFRI KHATOON	CINDRELLA HOTELS LTD
104	3BR19MBA56	JAYALATHA S	CITY UNION BANK LTD
105	3BR19MBA57	JEER MAHESHA	CKP LEISURE LTD
106	3TR19MBA55	SHANKARA REDDY P	COCHIN MALABAR ESTATES AND INDUSTRIES LTD
107	3TR19MBA56	SHARATH KUMAR K	COFFEE DAY ENTERPRISES LTD
108	3TR19MBA57	SHEFALI JAIN	COLGATE-PALMOLIVE (INDIA) LTD
109	3TR19MBA59	SHILPAKALA M G	COASTAL ROADWAYS LIMITED
110	3TR19MBA60	SHIVAKUMARA S	CITIZEN YARNS LTD
111	3BR19MBA58	JEEVAN V	CONFIDENCE FINANCE AND TRADING LTD
112	3BR19MBA59	JITHENDRA Y	CONTINENTAL FISCAL MANAGEMENT LTD
113	3BR19MBA60	JOSHNA V	CORAL INDIA FINANCE AND HOUSING LTD
114	3BR19MBA61	K ALTAF HUSSAIN KURESHI	COX AND KINGS FINANCIAL SERVICES LTD
115	3BR19MBA62	K VIJAYALAKSHMI	CREST VENTURES LTD
116	3TR19MBA61	SHIVARAJ M	CRISIL LTD
117	3TR19MBA62	SHOBHA	CRP RISK MANAGEMENT LTD
118	3TR19MBA63	SHRAVANI S	CREATIVE MERCHANTS LTD
119	3TR19MBA64	SHRUTHI	C V STEELS LTD
120	3TR19MBA65	SINDHU M	CUBICAL FINANCIAL SERVICES LTD
121	3BR19MBA63	KAKARLA SREELATHA	Bliss GVS Pharma Ltd
122	3BR19MBA64	KAMAKSHI N	Bindal Exports Ltd
123	3BR19MBA65	KARADE SHRAVANI	Biocon Ltd
124	3BR19MBA66	KARANAM NITHYA	Birla Corporation Ltd
125	3BR19MBA67	KARUTURI THANMAYI	Black Rose Industries Ltd
126	3TR19MBA66	SOWMYA V P	Biopac India Corporation Ltd
127	3TR19MBA67	SREELATHA R C	Binani Industries Ltd
128	3TR19MBA68	SRINIVAS G	Bharti Airtel Ltd
129	3TR19MBA69	SRINIVAS V	Bheema Cements Ltd
130	3TR19MBA70	SUMA DEVALE	Bilcare Ltd
131	3BR19MBA68	KAVYA SHREE P	ASIAN OILFIELD SERVICES LIMITED
132	3BR19MBA69	KEERTHI SRI	ATLAS CYCLES PRIVATE LIMITED
133	3BR19MBA70	KRISHNA PRAKASH HARLALKA	ASIAN TEA AND EXPORTS LTD
134	3BR19MBA71	KUMBARA BINDUPRIYA	ASM TECHNOLOGIES LTD
135	3BR19MBA72	LINGARAJ B	ASTER DM HEALTHCARE LTD
136	3TR19MBA71	SURESH M	ASTRA MICROWAVE PRODUCTS LIMITED
137	3TR19MBA72	SURYAKUMARI K	ATUL AUTO LTD
138	3TR19MBA73	SUSHMA REDDY G	AU SMALL FINANCE BANK LTD
139	3TR19MBA74	SWATHI L	AUROBINDO PHARMA LIMITED
140	3TR19MBA76	TEJASHWINI N	AUTOMOTIVE AXLES LIMITED
141	3BR19MBA73	LOKESH K	DR. REDDY'S LABORATORIES LTD.
142	3BR19MBA74	M ASHWAQH HUSSAIN	DHAMPUR SUGAR MILLS LTD.

143	3BR19MBA75	M JAYASHREE	DELHI LAND AND FINANCE LTD.
144	3BR19MBA76	M NIKHIL	DIXON TECHNOLOGIES LTD.
145	3BR19MBA77	M SHAFI ULLA BAIG	DIVIS LABORATORY LTD.
146	3TR19MBA79	V BASAVARAJESHWARI	DISH TV INDIA LTD.
147	3TR19MBA80	V S MONIKA	DHANUKA AGRITECH LTD.
148	3TR19MBA81	VARUNI R	DFM FOODS PVT.LTD.
149	3BR19MBA83	MANOJ B R	DYNACHEM PHARMACEUTICALS LTD.
150	3BR19MBA84	MANTHA SATHYANARAYANA	EARUM PHARMACEUTICALS LTD.
151	3BR19MBA86	PUJITHA D	ELEGANT PHARMACEUTICALS LTD.
152	3TR19MBA83	VEERESHA A	ECOPLAST LTD.
153	3BR19MBA78	MADUGONDE NAYANA	CANADA BANK
154	3BR19MBA79	MAHITHA GULLAPALI	CENTURY TEXTILES & INDUSTRIES LTD
155	3BR19MBA80	MALLIKARJUNA	-
156	3BR19MBA81	MANASA SAI	CENTRAL BANK OF INDIA
157	3BR19MBA82	MANJUNATHA	CACUTTA ELECTRICITY SUPPLY CORPORATION
158	3TR19MBA77	TEJASHWINI T	CHAMBAL FERTILIZERS & CHEMICAL LIMITED
159	3TR19MBA78	UMESHA S	CEAT LTD
160	3TR19MBA82	VEENA G	CASTROL INDIA LTD
161	3TR19MBA58	SHILPA	CAMLIN FINE SCIENCE LTD
162	3BR19MBA85	MATTETTU SHESHADRI PRIYANKA	ELDER PHARMACEUTICALS LTD
163	3TR19MBA84	VELAGALA VENKAT REDDY	EICHER MOTORS LIMITED
164	3TR19MBA85	HEMAVATHI Y	TATA MOTORS LIMITED
165	3TR19MBA86	B.YERRISWAMY	ELELWEISS FINANCIAL SERVICES LTD

SCHEDULE OF EVENTS TO BE CONDUCTED BY RESPECTIVE BATCH 2020-21

DATE/ PROJECT	NEW TANK PROJECT	OLD TANK PROJECT	HIGHWAY ALIGNMENT	SANITARY & WATER SUPPLY-TOWN PLANNIG AND LAYOUT
28-03-21	**B1** **(Total stations)** (1) Capacity Survey by Block leveling. (2) Details at waste weir (block levelling) and sluice points.	**B3** **(Total stations)** (1)Bund alignment L/S & C/S (2)Details of waste weir and sluice point	**B5** **(Total stations)** (1)Profile(L/S), C/S and bearings to run alignment from plain to slope terrain (i.e. from A to B, min 1 to 1.5 Km stretch)	**B7** **(Conventional survey)** (1) Locating source of water supply (surface or sub surface) point, establishing Bench Mark. (2) Preparing the village map with reference to source of water supply using chain and compass. (3) L/S & C/S for the proposed alignment for both mains and laterals.
	B2 **(Total stations)** (1)L/S & C/S for bund alignment. (2) L/S & C/S for canal alignment	**B4** **(Total stations)** (1)Capacity survey to explore quantity.	**B6** **(Total stations)** (1)Profile(L/S), C/S and bearings to run alignment from slope terrain to plain (i.e. from B to A, min 1 to 1.5 Km stretch)	**B8** **(Conventional survey)** (1)Dividing the whole area into number of blocks in dimension of facility for a planned town. (2) Conducting block leveling.
29-03-21	**B1** **(Total stations)** (1)L/S & C/S for bund alignment. (2) L/S & C/S for canal alignment	**B3** **(Total stations)** (1)Capacity survey to explore quantity.	**B5** **(Total stations)** (1)Profile(L/S), C/S and bearings to run alignment from plain to slope terrain (i.e. from A to B, min 1 to 1.5 Km stretch)	**B7** **(Conventional survey)** (1)Dividing the whole area into number of blocks in dimension of facility for a planned town. (2)Conducting block leveling.
	B2 **(Total stations)** (1) Capacity Survey by Block leveling. (2) Details at waste weir (block levelling) and sluice points.	**B4** **(Total stations)** (1)Bund alignment L/S & C/S (2)Details of waste weir and sluice point	**B6** **(Total stations)** (1)Profile(L/S), C/S and bearings to run alignment from slope terrain to plain (i.e. from B to A, min 1 to 1.5 Km stretch)	**B8** **(Conventional survey)** (1) Locating source of water supply (surface or sub surface) point, establishing Bench Mark. (2) Preparing the village map with reference to source of water supply using chain and compass (3) L/S & C/S for the proposed alignment for both mains and laterals

SCHEDULE OF EVENTS TO BE CONDUCTED BY RESPECTIVE BATCH ON 21/22 - 01 - 2019

DATE/ PROJECT	NEW TANK PROJECT	OLD TANK PROJECT	HIGHWAY ALIGNMENT	SANITARY & WATER SUPPLY-TOWN PLANNIG AND LAYOUT
30-03 -21	**B3** **(Total stations)** (1) Capacity Survey by Block leveling. (2) Details at waste weir (block levelling) and sluice points.	**B5** **(Total stations)** (1)Bund alignment L/S & C/S (2)Details of waste weir and sluice point	**B7** **(Total stations)** (1)Profile(L/S), C/S and bearings to run alignment from plain to slope terrain (i.e. from A to B, min 1 to 1.5 Km stretch)	**B1** **(Conventional survey)** (1) Locating source of water supply (surface or sub surface) point, establishing Bench Mark. (2) Preparing the village map with reference to source of water supply using chain and compass. (3) L/S & C/S for the proposed alignment for both mains and laterals.
	B4 **(Total stations)** (1)L/S & C/S for bund alignment. (2) L/S & C/S for canal alignment	**B6** **(Total stations)** (1)Capacity survey to explore quantity.	**B8** **(Total stations)** (1)Profile(L/S), C/S and bearings to run alignment from slope terrain to plain (i.e. from B to A, min 1 to 1.5 Km stretch)	**B2** **(Conventional survey)** (1)Dividing the whole area into number of blocks in dimension of facility for a planned town. (2) Conducting block leveling.
31-03 -21	**B3** **(Total stations)** (1)L/S & C/S for bund alignment. (2) L/S & C/S for canal alignment	**B5** **(Total stations)** (1)Capacity survey to explore quantity.	**B7** **(Total stations)** (1)Profile(L/S), C/S and bearings to run alignment from plain to slope terrain (i.e. from A to B, min 1 to 1.5 Km stretch)	**B1** **(Conventional survey)** (1)Dividing the whole area into number of blocks in dimension of facility for a planned town. (2)Conducting block leveling.
	B4 **(Total stations)** (1) Capacity Survey by Block leveling. (2) Details at waste weir (block levelling) and sluice points.	**B6** **(Total stations)** (1)Bund alignment L/S & C/S (2)Details of waste weir and sluice point	**B8** **(Total stations)** (1)Profile(L/S), C/S and bearings to run alignment from slope terrain to plain (i.e. from B to A, min 1 to 1.5 Km stretch)	**B2** **(Conventional survey)** (1) Locating source of water supply (surface or sub surface) point, establishing Bench Mark. (2) Preparing the village map with reference to source of water supply using chain and compass (3) L/S & C/S for the proposed alignment for both mains and laterals

SCHEDULE OF EVENTS TO BE CONDUCTED BY RESPECTIVE BATCH ON 23/24 - 01 - 2019

DATE/ PROJECT	NEW TANK PROJECT	OLD TANK PROJECT	HIGHWAY ALIGNMENT	SANITARY & WATER SUPPLY-TOWN PLANNIG AND LAYOUT
01-04 -21	**B5** **(Total stations)** (1) Capacity Survey by Block leveling. (2) Details at waste weir (block levelling) and sluice points.	**B7** **(Total stations)** (1)Bund alignment L/S & C/S (2)Details of waste weir and sluice point	**B1** **(Total stations)** (1)Profile(L/S), C/S and bearings to run alignment from plain to slope terrain (i.e. from A to B, min 1 to 1.5 Km stretch)	**B3** **(Conventional survey)** (1) Locating source of water supply (surface or sub surface) point, establishing Bench Mark. (2) Preparing the village map with reference to source of water supply using chain and compass. (3) L/S & C/S for the proposed alignment for both mains and laterals.
	B6 **(Total stations)** (1)L/S & C/S for bund alignment. (2) L/S & C/S for canal alignment	**B8** **(Total stations)** (1)Capacity survey to explore quantity.	**B2** **(Total stations)** (1)Profile(L/S), C/S and bearings to run alignment from slope terrain to plain (i.e. from B to A, min 1 to 1.5 Km stretch)	**B4** **(Conventional survey)** (1)Dividing the whole area into number of blocks in dimension of facility for a planned town. (2)Conducting block leveling.
02-04-21	**B5** **(Total stations)** (1)L/S & C/S for bund alignment. (2) L/S & C/S for canal alignment	**B7** **(Total stations)** (1)Capacity survey to explore quantity.	**B1** **(Total stations)** (1)Profile(L/S), C/S and bearings to run alignment from plain to slope terrain (i.e. from A to B, min 1 to 1.5 Km stretch)	**B3** **(Conventional survey)** (1)Dividing the whole area into number of blocks in dimension of facility for a planned town. (2)Conducting block leveling.
	B6 **(Total stations)** (1) Capacity Survey by Block leveling. (2) Details at waste weir (block levelling) and sluice points.	**B8** **(Total stations)** (1)Bund alignment L/S & C/S (2)Details of waste weir and sluice point	**B2** **(Total stations)** (1)Profile(L/S), C/S and bearings to run alignment from slope terrain to plain (i.e. from B to A, min 1 to 1.5 Km stretch)	**B4** **(Conventional survey)** (1) Locating source of water supply (surface or sub surface) point, establishing Bench Mark. (2) Preparing the village map with reference to source of water supply using chain and compass (3) L/S & C/S for the proposed alignment for both mains and laterals

SCHEDULE OF EVENTS TO BE CONDUCTED BY RESPECTIVE BATCH ON 25/26 - 01 - 2019

DATE/ PROJECT	NEW TANK PROJECT	OLD TANK PROJECT	HIGHWAY ALIGNMENT	SANITARY & WATER SUPPLY-TOWN PLANNIG AND LAYOUT
03-04-21	**B7** **(Total stations)** (1) Capacity Survey by Block leveling. (2) Details at waste weir (block levelling) and sluice points.	**B1** **(Total stations)** (1)Bund alignment L/S & C/S (2)Details of waste weir and sluice point	**B3** **(Total stations)** (1)Profile(L/S), C/S and bearings to run alignment from plain to slope terrain (i.e. from A to B, min 1 to 1.5 Km stretch)	**B5** **(Conventional survey)** (1) Locating source of water supply (surface or sub surface) point, establishing Bench Mark. (2) Preparing the village map with reference to source of water supply using chain and compass. (3) L/S & C/S for the proposed alignment for both mains and laterals.
	B8 **(Total stations)** (1)L/S & C/S for bund alignment. (2) L/S & C/S for canal alignment	**B2** **(Total stations)** (1)Capacity survey to explore quantity.	**B4** **(Total stations)** (1)Profile(L/S), C/S and bearings to run alignment from slope terrain to plain (i.e. from B to A, min 1 to 1.5 Km stretch)	**B6** **(Conventional survey)** (1)Dividing the whole area into number of blocks in dimension of facility for a planned town. (2)Conducting block leveling.
04-04-21	**B7** **(Total stations)** (1)L/S & C/S for bund alignment. (2) L/S & C/S for canal alignment	**B1** **(Total stations)** (1)Capacity survey to explore quantity.	**B3** **(Total stations)** (1)Profile(L/S), C/S and bearings to run alignment from plain to slope terrain (i.e. from A to B, min 1 to 1.5 Km stretch)	**B5** **(Conventional survey)** (1)Dividing the whole area into number of blocks in dimension of facility for a planned town. (2)Conducting block leveling.
	B8 **(Total stations)** (1) Capacity Survey by Block leveling. (2) Details at waste weir (block levelling) and sluice points.	**B2** **(Total stations)** (1)Bund alignment L/S & C/S (2)Details of waste weir and sluice point	**B4** **(Total stations)** (1)Profile(L/S), C/S and bearings to run alignment from slope terrain to plain (i.e. from B to A, min 1 to 1.5 Km stretch)	**B6** **(Conventional survey)** (1) Locating source of water supply (surface or sub surface) point, establishing Bench Mark. (2) Preparing the village map with reference to source of water supply using chain and compass (3) L/S & C/S for the proposed alignment for both mains and laterals.

Extensive Survey Project Batch list – 2020-2021

Total number of students = 119

Number of boys from PUC back ground = 44

Number of girls from PUC back ground = 31

Number of boys from DIP back ground =29

Number of girls from DIP back ground = 15

Extensive Survey Project Batch list 2020-2021

BATCH 1

SL. NO	USN	NAME
1	**18CV062**	**SHARANABASAVA SAJJAN (Team Leader)**
2	18CV009	CHANNABASAVA
3	18CV048	PRUTHVIRAJ G
4	18CV018	E. SAI KUMAR
5	18CV032	M TARUN
6	16CV025	JAVED AKTAR
7	18CV026	JHANVI MANASGAL
8	18CV066	SHASHIKALA KURI
9	18CV070	SONIYABEGUM
10	19CV423	P .MALLIKARJUNA
11	19CV432	SOMASEKHAR. G
12	19CV403	ARUN .V. RATOD
13	19CV408	GEETHA .S
14	19CV409	GOUSIYA BEGUM D L

BATCH 2

SL. NO	USN	NAME
1	**18CV075**	**SYED MOHAMMED ARSHAD (Team Leader)**
2	17CV014	BASAVARAJA H K
3	18CV014	DEEPU G HIREMATH
4	18CV052	RAHUL N MOOLIMANI
5	18CV080	VEERESH .E
6	18CV058	Y .RAVI RAJ
7	18CV008	BHOOMIKA E
8	18CV039	NIKHILA M
9	17CV091	ROOPA SHREE. U
10	18CV079	VAISHNAVI .V. BALLUR
11	19CV405	ASLAM BASHA K
12	19CV406	C .S .MARUTHI
13	19CV411	HARI KRISHNA
14	19CV437	VEDAVATHI G
15	19CV438	VEENA N P

BATCH 3

SL. NO	USN	NAME
1	**18CV027**	**JADESH J (Team Leader)**
2	18CV021	G SAI VENKAT
3	18CV041	P S SHIVA KUMAR
4	17CV056	MANIKANTA V.K
5	17CV097	SANTOSH HUDDAR
6	18CV023	H POOJA
7	18CV040	NIKITHA V S
8	18CV057	RAMYASHREE R RATHOD
9	18CV081	VIJAYA LAXMI. A
10	19CV440	WASEEM AKRAM K
11	19CV410	GOVINDA V
12	19CV407	DHARMA NAIK
13	19CV412	HEMANTHA B
14	17CV415	KEERTI D
15	19CV413	K ASHWINI

BATCH 4

SL. NO	USN	NAME
1	**19CV400**	**AKSHATHA.B.H (Team Leader)**
2	18CV001	ABHISHEK GUJJAL
3	18CV067	SHIVSHANKAR
4	18CV046	Y PRAVEEN KUMAR
5	18CV078	UDAY KIRAN .A .M
6	18CV073	SUKANYA .B. N
7	18CV083	MANAVI USHA RANI
8	18CV056	RAMYA P V
9	15CV350	NAYANA KUMARI SV
10	16CV015	DADI NAGA SAI JAYANTH
11	18CV434	VINAY SAGAR
12	19CV439	VINAY KUMAR K
13	19CV427	RAMA KUMARA .K.H
14	18CV006	B. VINAY KUMAR
15	19CV428	ROHINI

BATCH 5

SL. NO	USN	NAME
1	**19CV414**	**KAUSHIK R (Team Leader)**
2	18CV068	SIDDESH D
3	18CV044	PAVAN KUMAR B
4	17CV089	RAJASHEKHARA .J .N
5	17CV105	SUDARSHANA REDDY K
6	18CV030	M HARICHANDANA
7	18CV051	RADHA D A
8	18CV045	PRABHAVATHI S
9	18CV003	ANUSHA
10	19CV402	ANUSHA .B .M
11	19CV401	AMRUTHA M
12	18CV034	MANJUNATH B
13	19CV415	KHAJA BANDE NAWAZ C
14	19CV417	MANJUNATH H R
15	18CV065	SHARANABASAVA S NAYAK

BATCH 6

SL. NO	USN	NAME
1	**17CV062**	**ABDUL RAHIMAN (Team Leader)**
2	18CV076	TARUN KUMAR .M
3	18CV082	VISHAL KUMAR .M
4	18CV050	PUTTARAJ PATIL C S
5	16CV419	NAGARAJ N
6	18CV047	PREETI .G. PATIL
7	18CV020	G DEEPA
8	18CV004	ARPITA KOLKAR
9	19CV425	PRASHANTH KUMAR E
10	19CV416	KUSHAL YADAV G
11	19CV435	UPPAR VEERESH.K
12	19CV436	VARUN.S
13	19CV424	PAVITHRA D
14	19CV420	NAGENDRAMMA V
15	19CV429	SHOBHA B

BATCH 7

SL. NO	USN	NAME
1	**18CV077**	**THIPPESWAMY .R (Team Leader)**
2	18CV015	DINESH AMARESH D
3	18CV007	BHANU PRAKASH K P
4	18CV025	JASHVA DANIEL SAGAR H Y
5	17CV113	VIJAY SING NAIKA D
6	19CV421	NAVEEN KUMAR .V
7	19CV434	NAVEEN U
8	19CV430	SHRAVANI G.V
9	15CV046	GURU PRASAD M
10	18CV069	SINDU N R
11	18CV063	SAHANA SUMANJALI H V
12	18CV024	HEMALATA
13	18CV038	NETHRAVATHI M
14	19CV426	RAJINI D

BATCH 8

SL. NO	USN	NAME
1	**18CV042**	**PAKKURTHY KUSHALI (Team Leader)**
2	17CV409	FATHE MD SIDDIQUE SHAIK
3	18CV074	SUNEELA KUMARA
4	19CV422	NAZEERAHMED K
5	19CV418	MANOJ.D
6	18CV049	PUSHPALATHA S B
7	18CV054	H RAMAKRISHNA
8	18CV005	B AARATHI
9	18CV010	CHANNAPPA B DANGALLA
10	18CV012	D YASHASHWINI
11	18CV016	DIVYA SHREE R JOSHI
12	18CV017	DODDABASAVANAGOUDA K
13	18CV019	E V SANTOSH
14	19CV431	SRIKANTH JOSHI
15	18CV435	VINOD KUMAR T V

BITM BALLARI
DEPT OF CIVIL ENGG

EXTENSIVE SURVEY PROJECT FACULTY ALLOTMENT

SL NO	NAME OF THE PROJECT	NAME	DESIGNATION
1	New tank project	Mr. Basavaraj B	Asst Prof
		Mr. Shiva Kumar K	Asst Prof
		Mr. Syed Sadath Ali	Asst Prof
		Mr. Jayarama Setty K	Asst Prof
		Mr. Srinivas Pujari	Asst Prof
		Mr. Nagaraj N	Instructor
2	Old tank project	Mr.Md Khalid S	Asst Prof
		Mr. Anil Kumar H M	Asst Prof
		Mr.Tanu H M	Asst Prof
		Mr. Narayanappa Venkappa	Asst Prof
		Mr. Manjunath Swamy M A	Asst Prof
		Mr. Fathe Md Siddique Shaik	Instructor
3	Highway project	Mr.Ravichandra A H	Asst Prof
		Mr. VinayKumar Hunagund	Asst Prof
		Mr. Sharanabasava V Patil	Asst Prof
		Miss.Brunda A	Asst Prof
		Mr. Chethan B M	Instructor
4	Town planning and layout & Sanitary and water supply	Dr. T. H Patel	Prof
		Mr. Sagar N S	Asst Prof
		Mrs.Nirmala M V	Asst Prof
		Mr. Mohammed Haseebulla M	Asst Prof
		Mr. Ambareesh V	Asst Prof
		Mr. Keshava Murthy	Instructor

Date: 01.03.2021

Principal
Ballari Institute of Technology & Management
BELLARY

HOD
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B.E., M.Tech., Ph.D.
Professor & HOD
Dept of Civil Engineering
BITM, BALLARI.