

RESEARCH METHODOLOGY AND IPR
(Program Elective)

Instruction	2 P Hours per Week
Duration of SEE	2 Hours
SEE	50 Marks
CIE	25 Marks
Credits	2

Course Objectives: This course aims to:

1. Motivate to choose research as career
2. Formulate the research problem, prepare the research design
3. Identify various sources for literature review and data collection report writing
4. Equip with good methods to analyze the collected data
5. Know about IPR copyrights

Course Outcomes: Upon completion of this course, students will be able to:

1. Define research problem, review and assess the quality of literature from various sources
2. Improve the style and format of writing a report for technical paper/Journal report, understand and develop various research designs
3. Collect the data by various methods: observation, interview, questionnaires
4. Analyze problem by statistical techniques: ANOVA, F-test, Chi-square
5. Understand apply for patent and copyrights

UNIT-I

Research Methodology: Research Methodology: Objectives and Motivation of Research, Types of Research, research approaches, Significance of Research, Research Methods versus Methodology, Research Process, Criteria of Good Research, Problems Encountered by Researchers in India, Benefits to the society in general. Defining the Research Problem: Selection of Research Problem, Necessity of Defining the Problem

UNIT-II

Literature Survey Report Writing: Literature Survey: Importance and purpose of Literature Survey, Sources of Information, Assessment of Quality of Journals and Articles, Information through Internet. Report writing: Meaning of interpretation, layout of research report, Types of reports, Mechanics of writing a report. Research Proposal Preparation: Writing a Research Proposal and Research Report, Writing Research Grant Proposal

UNIT-III

Research Design: Research Design: Meaning of Research Design, Need of Research Design, Feature of a Good Design, Important Concepts Related to Research Design, Different Research Designs, Basic Principles of Experimental Design, Developing a Research Plan, Steps in sample design, types of sample designs.

UNIT-IV

Data Collection and Analysis: Data Collection: Methods of data collection, importance of Parametric, non parametric test, testing of variance of two normal population, use of Chi-square, ANOVA, F-test, z-test

UNIT-V

Patents and Copyright: Patent: Macro economic impact of the patent system, Patent document, How to protect your inventions. Granting of patent, Rights of a patent, how extensive is patent protection. Copyright: What is copyright. What is covered by copyright. How long does copyright last? Why protect copyright? Related Rights: what are related rights? Enforcement of Intellectual Property Rights: Infringement of intellectual property rights, Case studies of patents and IP Protection

Text Books:

1. C.R Kothari, "Research Methodology, Methods & Technique"; New Age International Publishers, 2004.
2. R. Ganesan, "Research Methodology for Engineers", MJP Publishers, 2011.
3. Y.P. Agarwal, "Statistical Methods: Concepts, Application and Computation", Sterling Pubs., Pvt., Ltd., New Delhi, 2004.

Suggested Reading:

1. Ajit Parulekar and Sarita D' Souza, "Indian Patents Law – Legal & Business Implications"; Macmillan India Ltd, 2006
2. B. L. Wadehra; "Law Relating to Patents, Trade Marks, Copyright, Designs & Geographical Indications"; Universal Law Publishing Pvt.Ltd., India 2000.
3. P. Narayanan; "Law of Copyright and Industrial Designs"; Eastern Law House, Delhi 2010.


HEAD
DEPARTMENT OF ECE
Jawahar Bharathi Institute of Technology
Hyderabad-500 075

Number of Students Enrolled: 25

Number of Students Completed the Course: 25

Sl.no	Roll number	Name of the student
1.	1601-20-744-001	ENDRIYALA SINDHUJA
2.	1601-20-744-002	KOTI SUSHMITHA
3.	1601-20-744-003	REDDY SAI SARANYA
4.	1601-20-744-004	MANDA VARSHA REDDY
5.	1601-20-744-005	PAGADIPALA SAI THARUN
6.	1601-20-744-006	KONDRA SUPRIYA
7.	1601-20-744-007	ENDELA PRANEETH KRISHNA
8.	1601-20-744-008	MUMMADI SRAVANI
9.	1601-20-744-009	MALKAPURAM SAIKIRAN GOUD
10.	1601-20-744-010	D PRASANNARASMI
11.	1601-20-744-012	SYED NAZEER UDDIN
12.	160120744401	Lakshmanaswami C.
13.	160120744402	S. Vishnu Vardhan
14.	160120744403	N. Manikanth
15.	160120744404	S. Swetha
16.	160120744405	Riyazuddin Mohammed
17.	160120744406	G. Sameera
18.	160120744407	S. Sai Sandeep Kumar
19.	160120744408	P. Nazima
20.	160120744409	G. Sai Koushik
21.	160120744410	F. Florance
22.	160120744411	Y. Nandhini
23.	160120744412	Krishna Vamshi K.
24.	160120744413	Susrutha Reddy K.
25.	16011974409	Pasham .Pooja Srinivas



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DEPARTMENT OF ECE
Jai Bharathi Institute of Technology
Hyderabad-500 075

TITLE OF THE VALUE ADDED COURSE: Writing Research Papers
COURSE CODE: CBIT/20EGV08
ACADEMIC YEAR: 2020 - 21
TARGET PARTICIPANTS: Final Year Students - VIII
DURATION OF THE COURSE: 40 hours/ 10 weeks

P. Raj Reddy

Head
Dept. of English
CBIT (A), Hyderabad-75.

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)
HYDERABAD-75
DEPARTMENT OF ENGLISH

VALUE ADDED COURSE

Subject: **Writing Research Papers**

Subject Code: **CBIT/20EGV08**

AY 2020-21 YEAR IV SEM VIII

Total number of students: **25**

VIII Sem Biotech		
Sl. No.	Roll Nos	Name of the Student
1	1601-17-805-001	AKANKSHA JOSHI
2	1601-17-805-002	AKSHITHA GUMMADI
3	1601-17-805-003	DEEPIKA DAMALLA
4	1601-17-805-004	DIVYA GANGA
5	1601-17-805-005	DIVYA TEJA GUNDALA
6	1601-17-805-006	HANITHA REDDY KOKU
7	1601-17-805-009	MAHITHA K
8	1601-17-805-011	NAVYA B
9	1601-17-805-012	NISHATH NAAZ
10	1601-17-805-014	NITIKA GIRIDHAR CHINTAMANENI
11	1601-17-805-015	PADMAVATHI SAI BHAVANA RONGALA
12	1601-17-805-016	PRAHARSHITA V
13	1601-17-805-017	RISHIKA KRISHNA PRANAVI AVADHANAM
14	1601-17-805-018	RISHIKA REDDY PINNAPU REDDY
15	1601-17-805-019	RISHISREE REDDY GEEDIPALLY
16	1601-17-805-021	ROSHITHA VEGESANA
17	1601-17-805-022	ROSHNI RAJ
18	1601-17-805-023	SAI HARSHITHA DAKOOR
19	1601-17-805-025	SHALINI RAJ NAMPALLY
20	1601-17-805-026	SNEHA A
21	1601-17-805-027	SOUMYA R SARAF
22	1601-17-805-028	SPHOORTHY NADIMPALLI
23	1601-17-805-029	SRESHTA GADELA
24	1601-17-805-030	SRI LALITHA AMRITA GARLAPATI
25	1601-17-805-032	SRI RUPALI MUKUNDALA

P. Raj

HEAD

Dept. of Mathematics and Humanities
Chaitanya Bharathi Institute of Technology
Gandipet, Hyderabad-500 075.

ENGLISH FOR RESEARCH PAPER WRITING

(Audit Course)

Instruction	2 P Hours per Week
Duration of SEE	2 Hours
SEE	50 Marks
CIE	—
Credits	Non Credit

Course Objectives: This course aims to:

1. Understand the nuances of language and vocabulary in writing a Research Paper.
2. Develop the content, structure and format of writing a research paper.
3. Enable the students to produce original research papers without plagiarism.

Course Outcomes: Upon completion of this course, students will be able to:

1. Interpret the nuances of research paper writing.
2. Differentiate the research paper format and citation of sources.
3. Review the research papers and articles in a scientific manner.
4. Avoid plagiarism and be able to develop their writing skills in presenting the research work.
5. Create a research paper and acquire the knowledge of how and where to publish their original research papers.

UNIT-I

Academic Writing: Meaning & Definition of a research paper – Purpose of a research paper – Scope – Benefits – Limitations – outcomes.

UNIT-II

Research Paper Format: Title – Abstract – Introduction – Discussion – Findings – Conclusion – Style of Indentation – Font size/Font types – Indexing – Citation of sources.

UNIT-III

Research Methodology: Methods (Qualitative – Quantitative) Review of Literature. Criticizing, Paraphrasing & Plagiarism.

UNIT-IV

Process of Writing a Research Paper: Choosing a topic - Thesis Statement – Outline – Organizing notes - Language of Research – Word order, Paragraphs – Writing first draft – Revising/Editing - The final draft and proof reading.

UNIT-V

Research Paper Publication: Reputed Journals – National/International – ISSN No, No. of volumes, Scopus Index/UGC Journals – Free publications - Paid Journal publications – /Advantages/Benefits

Text Book:

1. C. R Kothari, Gaurav, Garg, Research Methodology Methods and Techniques, New Age International Publishers. 4th Edition.

Suggested Reading:

1. Day R, “How to Write and Publish a Scientific Paper”, Cambridge University Press, 2006.
2. MLA “Hand book for writers of Research Papers”, East West Press Pvt. Ltd, New Delhi, 7th Edition.
3. Lauri Rozakis, Schaum’s, “Quick Guide to Writing Great Research Papers”, Tata McGraw Hills Pvt. Ltd, New Delhi.

Online Resources:

1. NPTEL: https://onlinecourses.nptel.ac.in/noc18_mg13/preview


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DEPARTMENT OF ECE
Jawahar Bharathi Institute of Technology
Hyderabad-500 075

Number of Students Enrolled : 25

Number of Students Completed the Course: 25

Sl.no	Roll number	Name of the student
1.	1601-20-744-001	ENDRIYALA SINDHUJA
2.	1601-20-744-002	KOTI SUSHMITHA
3.	1601-20-744-003	REDDY SAI SARANYA
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20.	160120744409	G. Sai Koushik
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23.	160120744412	Krishna Vamshi K.
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25.	16011974409	Pasham .Pooja Srinivas

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Hyderabad-500 075

VALUE EDUCATION

(Audit Course)

Instruction	2 P Hours per Week
Duration of SEE	2 Hours
SEE	50 Marks
CIE	—
Credits	Non Credit

Course Objectives: This course aims to

1. Understand the need and importance of Values for self-development and for National development.
2. Imbibe good human values and Morals
3. Cultivate individual and National character.

Course outcomes: After completion of the Course, Students will be able to

1. Gain necessary Knowledge for self-development
2. Learn the importance of Human values and their application in day today professional life.
3. Appreciate the need and importance of interpersonal skills for successful career and social life
4. Emphasize the role of personal and social responsibility of an individual for all-round growth.
5. Develop a perspective based on spiritual outlook and respect women, other religious practices, equality, non-violence and universal brotherhood.

UNIT-I

Human Values, Ethics and Morals: Concept of Values, Indian concept of humanism, human values; Values for self-development, Social values, individual attitudes; Work ethics, moral and non-moral behaviour, standards and principles based on religion, culture and tradition.

UNIT-II

Value Cultivation, and Self-Management: Need and Importance of cultivation of values such as Sense-of Duty, Devotion to work, Self-reliance, Confidence, Concentration, Integrity & discipline, and Truthfulness.

UNIT-III

Spiritual Outlook and Social Values: Personality and Behavior, Scientific attitude and Spiritual (soul) outlook; Cultivation of Social Values Such as Positive

Thinking, Punctuality, Love & Kindness, Avoiding fault finding in others, Reduction of anger, forgiveness, Dignity of labour, True friendship, Universal brotherhood and religious tolerance.

UNIT-IV

Values in Holy Books : Self-management and Good health; **and internal & external Cleanliness**, Holy books versus Blind faith, Character and Competence, Equality, Nonviolence, Humility, Role of Women.

UNIT-V

Dharma, Karma and Guna: Concept of soul; Science of Reincarnation, Character and Conduct, Concept of Dharma; Cause and Effect based Karma Theory; The qualities of Devine and Devilish; Satwic, Rajasic and Tamasic gunas.

Text Books:

1. Chakroborty, S.K. "Values & Ethics for organizations Theory and practice", Oxford University Press, New Delhi, 1998.
2. Jaya Dayal Goyandaka, "Srimad Bhagavad Gita", with Sanskrit Text, Word meaning and Prose meaning, Gita Press, Gorakhpur, 2017.



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DEPARTMENT OF ECE
Jawahar Bharathi Institute of Technology
Hyderabad-500 075

Number of Students Enrolled: 25

Number of Students Completed the Course: 25

Sl.no	Roll number	Name of the student
1.	1601-20-744-001	ENDRIYALA SINDHUJA
2.	1601-20-744-002	KOTI SUSHMITHA
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Jai Bharathi Institute of Technology
Hyderabad-500 075

COST MANAGEMENT OF ENGINEERING PROJECTS

(Open Elective)

Instruction	3 L Hours per Week
Duration of SEE	3 Hours
SEE	70 Marks
CIE	30 Marks
Credits	3

Course Objectives: This course aims to:

1. Enable the students to understand the concepts of Project management.
2. Provide knowledge on concepts of Project Planning and scheduling.
3. Create an awareness on Project Monitoring and Cost Analysis
4. Provide adequate knowledge to the students on Resource Management Costing-Variance Analysis
5. Train the students with the concepts of Budgetary Control for cost management and to provide basic platform on Quantitative techniques for cost management.

Course Outcomes: Upon completing this course, students will be able to:

1. Acquire in-depth knowledge about the concepts of project management and understand the principles of project management.
2. Determine the critical path of a typical project using CPM and PERT techniques.
3. Prepare a work break down plan and perform linear scheduling using various methods.
4. Solve problems of resource scheduling and levelling using network diagrams.
5. Learn the concepts of budgetary control and apply quantitative techniques for optimizing project cost.

UNIT-I

Project Management: Introduction to project managements, stakeholders, roles, responsibilities and functional relationships. Principles of project management, objectives and project management system. Project team, organization, roles, responsibilities. Concepts of project planning, monitoring, staffing, scheduling and controlling.

UNIT-II

Project Planning and Scheduling: Introduction for project planning, defining activities and their interdependency, time and resource estimation. Work breakdown structure. Linear scheduling methods-bar charts, Line of Balance (LOB), their limitations. Principles, definitions of network-based scheduling methods: CPM, PERT. Network representation, network analysis-forward and backward passes.

UNIT-III

Project Monitoring and Cost Analysis: introduction-Cost concepts in decision-making; Relevant cost, Differential cost, Incremental cost and Opportunity cost. Objectives of a Costing System; Inventory valuation; Creation of a Database for operational control; Provision of data for Decision-Making, Time cost tradeoff- Crashing project schedules, its impact on time on time, cost. Project direct and indirect costs.

UNIT-IV

Resources Management and Costing-Variance Analysis: Planning, Enterprise Resource Planning, Resource scheduling and levelling. Total Quality Management and Theory of constraints. Activity-Based Cost Management, Bench Marking; Balanced Score Card and Value-Chain Analysis

Standard Costing and Variance Analysis. Pricing strategies: Pareto Analysis. Target costing, Life Cycle Costing. Costing of service sector. Just-in-time approach, Material Requirement

UNIT-V

Budgetary Control: Flexible Budgets; Performance budgets; Zero-based budgets. Measurement of Divisional profitability pricing decisions including transfer pricing.

Quantitative Techniques for Cost Management: Linear Programming, PERT/ CPM, Transportation Assignment problems, Simulation, Learning Curve Theory.

Text Books:

1. Charles T Horngren "Cost Accounting A Managerial Emphasis", Pearson Education; 14th edition 2012,


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DEPARTMENT OF ECE
 Jyothsna Bharathi Institute of Technology
 Hyderabad-500 075

2. Charles T. Horngren and George Foster, "Advanced Management Accounting" Prentice-Hall; 6th Revised edition, 1987
3. Robert S Kaplan Anthony A. Atkinson, "Management & Cost Accounting", Pearson; 2nd edition, 1996
4. K. K Chitkara, "Construction Project Management: Planning, scheduling and controlling", Tata McGraw-Hill Education. 2004.
5. Kumar Neeraj Jha "Construction Project Management Theory and Practice", Pearson Education India; 2nd edition, 2015.

Number of Students Enrolled: 19

Number of Students Completed the Course: 19

Sl.no	Roll number	Name of the student
1.	1601-19-744-002	A Hariprasad
2.	1601-19-744-003	Asra Fathima
3.	1601-19-744-004	S.Chandravadhan
4.	1601-19-744-005	D Rajnarayana
5.	1601-19-744-006	Priyanka KVSL
6.	1601-19-744-007	rajitha N
7.	1601-19-744-008	ramprasad K
8.	1601-19-744-009	Sneha A
9.	1601-19-744-401	Varala Pasula Nikhila
10.	1601-19-744-402	Kamlikar Sowmya
11.	1601-19-744-403	J B Farheen
12.	1601-19-744-404	Kadakanchi.Karthik
13.	1601-19-744-405	BijjiRaquveer
14.	1601-19-744-406	Dava . Mahesh
15.	1601-19-744-407	Begari Sai Vidya
16.	1601-19-744-408	Balavanthula . Srikanth
17.	1601-19-744-409	Pooja Srinivas
18.	1601-19-744-410	Ayush Sharma
19.	1601-19-744-411	Miriyala Abhinay Kumar


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DEPARTMENT OF ECE
 Jyothsna Bharathi Institute of Technology
 Hyderabad-500 075

TITLE OF THE VALUE ADDED COURSE

English lab

Code: CBIT/ 20EG C02

Duration: 30 Hours

Academic year: 2020-21



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Dept. of EEE, CBIT (A)
Gandipet, Hyderabad - 75

Syllabus

with effect from the Academic Year 2020-21

20EG C02

ENGLISH LAB
(Common to all branches)

Instruction	2 Hours per week
Duration of SEE	3 Hours
SEE	50 Marks
CIE	50 Marks
Credits	1

Course Objectives: This course will introduce the students:

1. To nuances of Phonetics and give them sufficient practice in correct pronunciation.
2. To word stress and intonation.
3. To IELTS and TOEFL material for honing their listening skills.
4. To activities enabling them overcome their inhibitions while speaking in English with the focus being on fluency rather than accuracy.
5. To team work, role behavior while developing their ability to discuss in groups and making oral presentations.

Course Outcomes: After successful completion of the course the students will be able to:


1. Define the speech sounds in English and understand the nuances of pronunciation in English
2. Apply stress correctly and speak with the proper tone, intonation and rhythm.
3. Analyze IELTS and TOEFL listening comprehension texts to enhance their listening skills.
4. Determine the context and speak appropriately in various situations.
5. Design and present effective posters while working in teams, and discuss and participate in Group discussions.

Exercises

1. **Introduction to English Phonetics:** Introduction to auditory, acoustic and articulatory phonetics, organs of speech: the respiratory, articulatory and phonatory systems.
2. **Sound system of English:** Phonetic sounds and phonemic sounds, introduction to international phonetic alphabet, classification and description of English phonemic sounds, minimal pairs . The syllable: types of syllables, consonant clusters.
3. **Word stress:** Primary stress, secondary stress, functional stress, rules of word stress.
4. **Rhythm & Intonation:** Introduction to Rhythm and Intonation. Major patterns, intonation of English with the semantic implications.
5. **Listening skills** – Practice with IELTS and TOEFL material
6. **Public speaking** – Speaking with confidence and clarity in different contexts on various issues.
7. **Group Discussions** - Dynamics of a group discussion, group discussion techniques, body language.
8. **Pictionary** – weaving an imaginative story around a given picture.
9. **Information Gap Activity** – Writing a brief report on a newspaper headline by building on the hints given
10. **Poster presentation** – Theme, poster preparation, team work and presentation.


Suggested Reading

1. T Balasubramanian. A Textbook of English Phonetics for Indian Students, Macmillan, 2008.
2. J Sethi et al. A Practical Course in English Pronunciation (with CD), Prentice Hall India, 2005.
3. Priyadarshi Patnaik. Group Discussions and Interviews, Cambridge University Press Pvt. Ltd., 2011
4. Aruna Koneru, Professional Speaking Skills, Oxford University Press, 2016


HEAD
Dept. of EEE, CBIT (A)
Gandipet, Hyderabad - 75

Time Table

Branch: EEE							
Day	9:10 - 10:10	10:10- 11:10	11:15- 12:15	12:15- 13:00	13:00- 14:00	14:00- 15:00	15:05- 16:05
Monday				LUNCH			
Tuesday						English lab	
Wednesday							
Thursday							
Friday							
Saturday							



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Dept. of EEE, CBIT (A)
Gandipet, Hyderabad - 75

List of Participants

B.E. (EEE-1) - I SEMESTER

Batch: 2020-21


S.No	Admn No.	Roll No.	Name of the Candidate
1	20-6149	1601-20-734-001	AISHA NASEEMA
2	20-6148	1601-20-734-002	AKANKSHA BOBBILI
3	20-6116	1601-20-734-003	AKSHAYA BURA
4	20-6101	1601-20-734-004	DIVYA REDDY DHAMMA
5	20-6142	1601-20-734-005	GEETHIKA CHOWDARY BOLLU
6	20-6110	1601-20-734-006	GOWTHAMI CHUNDURU
7	20-6156	1601-20-734-007	JAYA SAI TANMAYI-KANCHAPU
8	20-6134	1601-20-734-008	KAVYA NATTE
9	20-6138	1601-20-734-009	KUNDANA POOSKUR
10	20-6114	1601-20-734-010	MONITHA SAI CHINNALA
11	20-6120	1601-20-734-011	NIKITHA TADKALE
12	20-6158	1601-20-734-012	NOUREEN SULTANA
13	20-6155	1601-20-734-013	POOJA REDDY NARAYANA
14	20-6122	1601-20-734-014	PRASANNA ELASARAM
15	20-6153	1601-20-734-015	PRAVALLIKA PUNUMALLI
16	20-6113	1601-20-734-016	ROHITHA RAGA VAVILALA
17	20-6132	1601-20-734-017	SAGARIKA MERUGU
18	20-6129	1601-20-734-018	SHIVANI VASPARI
19	20-6111	1601-20-734-019	TEJASRI CHEELA
20	20-6124	1601-20-734-020	VAISHNAVI SANUGOMMULA
21	20-6126	1601-20-734-021	ADWAITH GANJI
22	20-6154	1601-20-734-022	AKSHAY ARPULA
23	20-6160	1601-20-734-023	ANDREWS GNANA DEEPAK GUNTURU
24	20-6139	1601-20-734-024	ANOOPKUMAR MANTHANI
25	20-6117	1601-20-734-025	AZEEZ KHAN P
26	20-6119	1601-20-734-026	BHARATH PATTEPU
27	20-6104	1601-20-734-027	CHARAN KUMAR C
28	20-6107	1601-20-734-028	FAISAL MOHAMMED
29	20-6133	1601-20-734-029	FERDOUES MD
30	20-6128	1601-20-734-030	GANESH VADDE


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Dept. of EEE, CBIT (A)
Gandipet, Hyderabad - 75

B.E. (EEE-1) - I SEMESTER

Batch: 2020-21


S.No	Admn No.	Roll No.	Name of the Candidate
31	20-6112	1601-20-734-031	GNANDEEP GADDE
32	20-6150	1601-20-734-032	GOPICHAND VUTUKURI
33	20-6105	1601-20-734-033	HONNESH MANDAPATI
34	20-6151	1601-20-734-034	KOWSHIKK KADARI
35	20-6137	1601-20-734-035	LOKESH NAYAK GUGULOTHU NAREN
36	20-6121	1601-20-734-036	MANIKANTA REDDY SAKAM
37	20-6143	1601-20-734-037	MANOJ KOUSHIK SOSA MEESALA
38	20-6106	1601-20-734-038	MANOJ NANNEBOYINA
39	20-6141	1601-20-734-039	MOHAMMED RAYYAN
40	20-6145	1601-20-734-040	PRAGHNAY REDDY EGA
41	20-6144	1601-20-734-041	RAVINDER NAIK AMGOTH
42	20-6109	1601-20-734-042	SAI KIRAN GAJWARI
43	20-6125	1601-20-734-043	SAI NIRANSHU ANNAM
44	20-6108	1601-20-734-044	SAI THARUN DOPPA
45	20-6118	1601-20-734-045	SAIRAM DEVARUPPULA
46	20-6157	1601-20-734-046	SAITEJA DASARIVENKATESHWARAO
47	20-6115	1601-20-734-047	SANTHOSH NATHAM
48	20-6103	1601-20-734-048	SHAIK UBAID
49	20-6159	1601-20-734-049	SHANTAN RAMI REDDY V
50	20-6136	1601-20-734-050	SHASHANK PENCHALA
51	20-6146	1601-20-734-051	SHASHMITH BALAJI SHAGANTI
52	20-6147	1601-20-734-052	SHIVA NANDU M
53	20-6135	1601-20-734-053	SHIVAIAH T
54	20-6123	1601-20-734-054	SIDDARTH CHANDRA SIRAMDAS
55	20-6140	1601-20-734-055	SRIDHAR REDDY GUNDLA
56	20-6131	1601-20-734-056	SRIHAAS K N S TADIKONDA
57	20-6102	1601-20-734-057	SUJITH PAYYAVULA
58	20-6152	1601-20-734-058	VENKATA SAI CHARAN REDDY KUNDURU
59	20-6130	1601-20-734-059	VISHNU VARDHAN ANUMALA
60	20-6127	1601-20-734-060	VISHNU VARDHAN CHILUVERI


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 Dept. of EEE, CBIT (A)
 Gandipet, Hyderabad - 75

B.E. (EEE-2) - I SEMESTER

Batch: 2020-21


S.No	Admn No.	Roll No.	Name of the Candidate
1	20-6241	1601-20-734-061	ANUSHA DARAVATH
2	20-6223	1601-20-734-062	AYESHA FARHEEN SHAIK
3	20-6243	1601-20-734-063	BHAVANA NENDRALLA
4	20-6204	1601-20-734-064	BHUVANA PALINI THATICHETLA
5	20-6246	1601-20-734-065	JAYA SRI DHARMASOTH
6	20-6203	1601-20-734-066	KAVYA CHELLAPILLA
7	20-6226	1601-20-734-067	NAVYA VAISHNAVI ANTHANNAGARI
8	20-6230	1601-20-734-068	NIHARIKA DANDU
9	20-6227	1601-20-734-069	PALLAVI ARUKONDA
10	20-6236	1601-20-734-070	PAVANI MALLAIAHGARI
11	20-6256	1601-20-734-071	PRAVALIKA ANTHANI
12	20-6242	1601-20-734-072	RACHANA NAGULA
13	20-6234	1601-20-734-073	RISHITHA GUJJA
14	20-6247	1601-20-734-074	SAIARUN NANDIKONDA
15	20-6218	1601-20-734-075	SHASHANKA BOUTHU
16	20-6251	1601-20-734-076	SHREYA TEYNAMPET
17	20-6249	1601-20-734-077	SREESHMA GUNDA
18	20-6213	1601-20-734-078	SRINITHA GUNDA
19	20-6238	1601-20-734-079	SWATHI PIDUGU
20	20-6260	1601-20-734-080	VAISHNAVI D
21	20-6254	1601-20-734-081	VARSHITHA VAIDYA
22	20-6250	1601-20-734-082	VINISHA MORE
23	20-6239	1601-20-734-083	ABDUL JAVVAD AHMED
24	20-6202	1601-20-734-084	ABHINAV PEDDINI
25	20-6225	1601-20-734-085	ABHISHEK TOLUVA
26	20-6215	1601-20-734-086	ADITHYA BATTU
27	20-6224	1601-20-734-087	BAHADUR NEWAR DEVESH
28	20-6217	1601-20-734-088	DHANUSH SAI REDDY YERAMAREDDY
29	20-6248	1601-20-734-089	HAREESH TEJA BATHULA
30	20-6205	1601-20-734-090	HAREYAANK RASAMADUGU


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 Gandipet, Hyderabad - 75

B.E. (EEE-2) - I SEMESTER

Batch: 2020-21

S.No	Admn No.	Roll No.	Name of the Candidate
31	20-6257	1601-20-734-091	HARSHITH ANUMALLA
32	20-6228	1601-20-734-092	HIRUDAY PRADYUNNATH SURINENI
33	20-6231	1601-20-734-093	KARTHIKEYA REDDY SAJJALA
34	20-6259	1601-20-734-094	KASHA MALAY
35	20-6235	1601-20-734-095	KIRAN KUMAR M
36	20-6252	1601-20-734-096	KRISHNA VAMSHI PASUPULA
37	20-6229	1601-20-734-097	MADHILESH ERRAMSHETTI
38	20-6240	1601-20-734-098	MAHENDAR MEDARI
39	20-6207	1601-20-734-099	MAHESH TEJA CHALASANI
40	20-6255	1601-20-734-100	MANIKANTA GOUD AMDALA
41	20-6211	1601-20-734-101	NARASIMHA KASU
42	20-6220	1601-20-734-102	PAVAN KALYAN VADGURE
43	20-6201	1601-20-734-103	PAVAN KUMAR SANGANI
44	20-6206	1601-20-734-104	PRANAY PUSULURI
45	20-6244	1601-20-734-105	PREM KUMAR P
46	20-6232	1601-20-734-106	RAJU BASHABOINA
47	20-6209	1601-20-734-107	RISHIKESH PISKA
48	20-6210	1601-20-734-108	RUHAAN AHMED KHAN
49	20-6221	1601-20-734-109	SAI KIRAN MADDULA
50	20-6237	1601-20-734-110	SAIKUMAR DHARAVATH
51	20-6208	1601-20-734-111	SAITEJA SHIVANADHULA
52	20-6212	1601-20-734-112	SAKETH KUMAR GANDLA
53	20-6222	1601-20-734-113	SHIVA PRANAY LAKKEPURAM
54	20-6245	1601-20-734-114	SHREYAN MARRI
55	20-6219	1601-20-734-115	SIDDHARTHA MACHARLA
56	20-6214	1601-20-734-116	SRAVAN KUMAR PADALA
57	20-6216	1601-20-734-117	UDAY.KIRAN GOUD MAKTHALA
58	20-6258	1601-20-734-118	VIGNESH BHUKYA
59	20-6253	1601-20-734-119	VISHNU TEJA NALLA
60	20-6233	1601-20-734-120	VIVEK BEETHI
61	19-6201	1601-19-734-086	PENTAPARTHY BHARAT


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 Dept. of EEE, CBIT (A)
 Gandipet, Hyderabad - 75

**TITLE OF THE VALUE ADDED
COURSE:**

Technical Presentation

COURSE CODE:

CBIT/20EGV04

ACADEMIC YEAR:

2020 - 21

TARGET PARTICIPANTS:

Final Year Students - VII

DURATION OF THE COURSE:

40 hours/ 10 weeks

P. Raj Reddy

Head
Dept. of English
CE, Jyoti, Hyderabad-75.

TITLE OF THE VALUE ADDED COURSE:

Technical Presentation

COURSE CODE:

CBIT/20EGV04

ACADEMIC YEAR:

2020 - 21

TARGET PARTICIPANTS:

Final Year Students - VIII

DURATION OF THE COURSE:

40 hours/ 10 weeks

P. Raj Kumar

**Head
Dept. of English
CBIT (A), Hyderabad-75.**

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)
HYDERABAD-75
DEPARTMENT OF ENGLISH

VALUE ADDED COURSE

Subject: **Technical Presentation**

Subject Code: **CBIT/20EGV04**

AY 2020-21 YEAR IV SEM VII

Total number of students: 65

VII Sem IT-1		
Sl. No.	Roll Nos	Name of the Student
1	1601-17-737-001	APOORVA VELDANDA
2	1601-17-737-002	ASHRITHA KOTLA
3	1601-17-737-003	DEEPSHIKA MAROJU
4	1601-17-737-004	DIVISHA SRI SANJANA MADUPALLI
5	1601-17-737-005	DURGA BHAVANI CHUNDURI
6	1601-17-737-006	DURGA SAI LAKSHMI NIMMAGADDA
7	1601-17-737-007	LAHARI GOUD PALLY
8	1601-17-737-008	MANOGNA SALENDRA
9	1601-17-737-009	MEGHANA VISHWANATHULA
10	1601-17-737-010	MUKTA MADDIPATLA
11	1601-17-737-011	NEHA DINESH PRABHU
12	1601-17-737-012	PRASANNA KUMARI SURAPUREDDY
13	1601-17-737-013	PRERANA RAJOLE
14	1601-17-737-014	ROSHNI VANAM
15	1601-17-737-015	SAHITHYA MUTHYAMGARI
16	1601-17-737-016	SAI CHANDANA AMULYA KOLANUKONDA
17	1601-17-737-017	SAI SUSHMA REDDY JULAKANTI
18	1601-17-737-018	SAMVIDHA REDDY MANNEM
19	1601-17-737-019	SANJANA MALTHUMKAR
20	1601-17-737-020	SHAIK SHAGUFTA NAAZ
21	1601-17-737-021	SHIVAJYOTHI CHIDURA
22	1601-17-737-023	SPOORTHY REDDY CHAPPIDI
23	1601-17-737-024	SRAVANI G
24	1601-17-737-025	SRINIDHI REDDY GARLAPATI
25	1601-17-737-026	SRUTHAKEERTHI MYLAVARAPU
26	1601-17-737-027	SWETHA KONDI
27	1601-17-737-029	VIDYADHARI KANDAGATLA
28	1601-17-737-030	YOGITHA NANDINI MANDURI
29	1601-17-737-031	AAHAN REDDY BUDIDHA
30	1601-17-737-032	ANUDEEP CHANDRA KAKKIRENI
31	1601-17-737-033	ARAVIND KUMAR BODIGE
32	1601-17-737-034	ARUN RAJ PEDDHALA

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Dept. of Mathematics and Humanities
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Gandipet, Hyderabad-500 075.

33	1601-17-737-035	ARUN REDDY NALLA
34	1601-17-737-037	HARSHAVARDHAN REDDY B
35	1601-17-737-038	HEMANTH REDDY KAKARLA

P. Raj Reddy

HEAD
Dept. of Mathematics and Humanities
Chaitanya Bharathi Institute of Technology
Gandipet, Hyderabad-500 075.

VII Sem EEE -1		
Sl. No.	Roll Nos	Name of the Student
1	1601-17-734-001	AKSHITA BALIDI
2	1601-17-734-002	ISHWARYA PILLI
3	1601-17-734-003	JHANSI MACHERLA
4	1601-17-734-004	NAVEENA K
5	1601-17-734-005	POOJITHA YELLU
6	1601-17-734-006	PRAMEELA P
7	1601-17-734-007	PRIYANKA MUDAVATH
8	1601-17-734-008	RAMYA SREE PALA
9	1601-17-734-009	REVATHI MARRY
10	1601-17-734-010	SADHANA GUNDAGANI
11	1601-17-734-011	SAI SPANDANA ALLURI
12	1601-17-734-012	SAIKEERTHI A
13	1601-17-734-013	SHAHEEN C
14	1601-17-734-014	SHRAVYA DHEERAVATH
15	1601-17-734-015	SRI PRAVALLIKA VASIREDDY
16	1601-17-734-017	SWETHA LENKALA
17	1601-17-734-018	VEDITHA LAKSHMI Y
18	1601-17-734-020	AKHIL REDDY GANGULA
19	1601-17-734-021	AKSHITH MACHARLA
20	1601-17-734-022	BHARATH KUMAR GULAGATTU
21	1601-17-734-023	GARV AGARWAL
22	1601-17-734-024	GIRICHARAN REDDY MOGILIGARI
23	1601-17-734-025	GNANA PRASAD ADABALA
24	1601-17-734-026	GOPI KRISHNA REDDY VOLADRI
25	1601-17-734-027	HARSHITH REDDY PATHPI
26	1601-17-734-028	HRISHIKES SAI DUTTALURI
27	1601-17-734-030	JAYA SANKEERTH ISUKAPATLA
28	1601-17-734-032	MAHESH KUMAR NETHA PENDEM
29	1601-17-734-033	MAHESH REDDY BANKA
30	1601-17-734-034	MANOJ KUDIKALA

P. Raju

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Dept. of Mathematics and Humanities
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Gandipet, Hyderabad-500 075.

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)
HYDERABAD-75
DEPARTMENT OF ENGLISH

VALUE ADDED COURSE

Subject: **Technical Presentation**

Subject Code: **CBIT/20EGV04**

AY 2020-21 YEAR IV SEM VIII

Total number of students: 130

VIII Sem IT-1		
Sl. No.	Roll Nos	Name of the Student
1	1601-17-737-039	KRANTHI JELLA
2	1601-17-737-040	MADAN VIJAY K
3	1601-17-737-041	MANIDEEP LAXMISHETTY
4	1601-17-737-042	NISHTHARTH KASIREDDY
5	1601-17-737-043	PAVAN BUPALLY
6	1601-17-737-044	PAVAN PAWAR
7	1601-17-737-045	PAVAN THALLA
8	1601-17-737-046	PRADYUMNA REDDY VANGALA
9	1601-17-737-047	PRATIK LAHOTI
10	1601-17-737-048	RAGHAVENDRA REDDY SESHAMPALLY
11	1601-17-737-049	RAHUL RACHARLA
12	1601-17-737-050	RANJITH REDDY GADDAM
13	1601-17-737-051	SAI SARAN RANGISETTI
14	1601-17-737-052	SAIPRAKASH BOLLAM
15	1601-17-737-053	SAMEER TEJA AVVARU
16	1601-17-737-054	SATYA SHODHAKA R PRABHANJAN
17	1601-17-737-055	SRINATH VISLAVATH
18	1601-17-737-056	SURYA SURVI
19	1601-17-737-057	SYED DANISH HUSSAINI
20	1601-17-737-058	SYED FARHAN
21	1601-17-737-059	VINIL KUMAR PEDDI
22	1601-17-737-060	YASHWANTH KUMAR VANGALAPUDI
23	1601-17-737-301	PAGIDIPALLY SHALOM VIJAYANAND
24	1601-17-737-303	V NITHISHA
25	1601-17-737-305	BHEMAVARAPU PHANINDER
26	1601-17-737-306	PEDDI LEELA BHARATH
27	1601-17-737-307	EADA GIRISH GOUD
28	1601-17-737-308	GOVU HARITHA REDDY
29	1601-17-737-310	DANDU MANICHANDANA
30	1601-17-737-311	BODDU HARISH

P. Nijalap

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Dept. of Mathematics and Humanities
Chaitanya Bharathi Institute of Technology
Hyderabad-500 075.

VIII Sem EEE-1		
Sl. No.	Roll Nos	Name of the Student
1	1601-17-734-035	MIRZA MAAZ BAIG
2	1601-17-734-036	MOHAMMAD ABDUL ASIF
3	1601-17-734-037	MOHAN GALI
4	1601-17-734-038	NANAJI GURLE
5	1601-17-734-039	NAVEEN REDDY GURRALA
6	1601-17-734-040	NIKHIL REDDY VAKITI
7	1601-17-734-041	PAVAN PULIMAMIDI
8	1601-17-734-042	PREM KUMAR AKULA
9	1601-17-734-043	RAJENDER RUCHIDAR DEVULAPALLY
10	1601-17-734-044	RAJESH TALLAM
11	1601-17-734-045	ROHIT REDDY SOLIPURAM
12	1601-17-734-046	SAI CHARAN MUNJALA
13	1601-17-734-047	SAI GANESH PALLAPU
14	1601-17-734-048	SAI NAVEEN APPALA
15	1601-17-734-049	SAI SURYA D
16	1601-17-734-050	SAIHARSHA REDDY P
17	1601-17-734-051	SHUBHANKAR GAUR
18	1601-17-734-052	SRIKANTH P
19	1601-17-734-053	SRIKAR SENADHIPATHI
20	1601-17-734-054	SRIVASTAV SRIPADI
21	1601-17-734-055	SRIVIBHAVAN LABHISHETTY
22	1601-17-734-057	VIJAY CHANDRA ATHELI
23	1601-17-734-058	VINOD POUNGOTI
24	1601-17-734-059	VISHWANATH ANAND REDDY P
25	1601-17-734-060	YOGANAND SAGAR S
26	1601-17-734-301	BARKAM MANOJ CHANDRA
27	1601-17-734-302	KARRA NIKHIL REDDY
28	1601-17-734-303	BATHINI RAHUL
29	1601-17-734-304	SURA RAMYA
30	1601-17-734-305	BAJARU JITHENDAR GOUD
31	1601-17-734-306	ELLANDULA SHIVA KUMAR
32	1601-17-734-307	B MAHESH KUMAR
33	1601-17-734-308	KANAKAM SURYA RAMYA
34	1601-17-734-309	PINGILI RAMYA
35	1601-17-734-310	MOHAMMED BAQTIYAR WAHED SUMAIR

P. Nig

HEAD

Dept. of Mathematics and Humanities
Kalyaniya Bharathi Institute of Technology
Kalyani, West Bengal - 741015, India
Ph: 033-26560075.

VIII Sem IT-2		
Sl. No.	Roll Nos	Name of the Student
1	1601-17-737-097	MADHAV JINDAM
2	1601-17-737-098	MOKSH SAILESH JAIN
3	1601-17-737-099	NITIN REDDY VATTI
4	1601-17-737-100	PAVAN KALYAN INUGURTHI
5	1601-17-737-101	PRASHANTH GOPATHI
6	1601-17-737-102	PREETHI VARDHAN ANUSRI EGA
7	1601-17-737-103	RAGHAV MADHAVAPEDDI
8	1601-17-737-104	ROHITHKUMAR KESHETTI
9	1601-17-737-105	SAI CHARAN KOPPARAPU
10	1601-17-737-108	SAMPATH BHUKYA
11	1601-17-737-109	SANJAY KUMAR KALWA
12	1601-17-737-110	SATHVIK SURABHI
13	1601-17-737-112	SUMANTH PARAMKUSAM
14	1601-17-737-113	SYED HYDER HUSSAIN
15	1601-17-737-115	VENKATA SRINIVAS KOMPALLY
16	1601-17-737-116	VIKAS GOLI
17	1601-17-737-117	VINAY PANNATI
18	1601-17-737-118	VINEETH UDUMALA
19	1601-17-737-120	ZOHAIB ABDULLAH AHMED
20	1601-17-737-313	HAMILPUR SHIVANI
21	1601-17-737-314	AKHIL BANDARU
22	1601-17-737-315	RANGASUBE NITEESH BHARGAV
23	1601-17-737-316	KEERTHI YASHWANTH
24	1601-17-737-317	BHEMAVARAPU NAGENDER
25	1601-17-737-320	M.SRIDHAR GOUD
26	1601-17-737-321	R POOJITHA
27	1601-17-737-322	M BANU TEJA
28	1601-17-737-323	MUSHFIQ HUSSAIN
29	1601-16-737-090	GONE JAYA SIMHA SAI SHIVA REDDY
30	1601-16-737-093	MD MAHEBUB

P. Raj Reddy

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Dept. of Mathematics and Humanities
Chaitanya Bharathi Institute of Technology
Gandipet, Hyderabad-500 075.

VIII Sem EEE-2		
Sl. No.	Roll Nos	Name of the Student
1	1601-17-734-091	MOHIT SRINIVAS MAHAVEER PASUPELETI
2	1601-17-734-092	PARJANYA PHANI MUDIGONDA
3	1601-17-734-093	PAVAN LAVUDYA
4	1601-17-734-095	PAVAN KUMAR DHARMOJU
5	1601-17-734-096	POOJITH RAMAGIRI
6	1601-17-734-097	RAKESH GORATI
7	1601-17-734-098	RAKESH GOUD G
8	1601-17-734-099	SAGAR TIWARI
9	1601-17-734-100	SAI DEESKSHITH RAYAPROLU
10	1601-17-734-101	SAI KRISHNA KAVALI
11	1601-17-734-102	SAI KRISHNA VOGGU
12	1601-17-734-103	SAI KUMAR CHINNAM
13	1601-17-734-104	SAI PRANAY REDDY AARE
14	1601-17-734-105	SAI ROHIT KAPPALA
15	1601-17-734-106	SAI TEJA NARAHARI
16	1601-17-734-109	SHYAM SUNDER REDDY KUNREDDY
17	1601-17-734-111	SRINIVASA REDDY DUGGAMPUDI
18	1601-17-734-112	SURYA RAJ K
19	1601-17-734-113	SURYATEJA REDDY CHITTI
20	1601-17-734-114	SWAMY DEVENDER VARDHAN BANDARI
21	1601-17-734-115	VASHIST NULIGONDA
22	1601-17-734-116	VISHWANATH REDDY VANGATI
23	1601-17-734-117	YASHWANTH A S N
24	1601-17-734-118	YASHWANTH BARATAM
25	1601-17-734-120	YESHWANTH RAYANKULA
26	1601-17-734-313	D RATHANAKAR REDDY
27	1601-17-734-314	K MALLESH
28	1601-17-734-316	P NAGARAJU
29	1601-17-734-317	YENUGANDULA RANADHEER
30	1601-17-734-318	KARNATI NAGANJANI
31	1601-17-734-319	KOTHAKONDA AKARSH
32	1601-17-734-321	AMBATI ANIL KUMAR
33	1601-17-734-322	KANDUKURI SAI SHEETAL
34	1601-17-734-323	KARISHMA BEGUM
35	1601-17-734-324	ABBAGOWNI AKASH

P. Raju

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Dept. of Mathematics and Humanities
 Ananya Bharathi Institute of Technology
 Gandipet, Hyderabad-500 075.

TITLE OF THE VALUE ADDED COURSE
Engineering Economics and Accountancy

Code: CBIT/ 18MBC01

Duration: 30 Hours

Academic year: 2020-21


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Dept. of EEE, CBIT (A)
Gandipet, Hyderabad - 75

Syllabus

18MB C01

ENGINEERING ECONOMICS AND ACCOUNTANCY

Instruction	3 L Hours per week
Duration of SEE	3 Hours
SEE	70 Marks
CIE	30 Marks
Credits	3

Course Objectives:

This course aims to:

1. To demonstrate the importance of Managerial Economics in Decision Making.
2. To explain the concept of Accountancy and provide basic knowledge on preparation of Final accounts.
3. To understand the importance of Project Evaluation in achieving a firm's Objective.

Course Outcomes:

After completion of the course, student will be able to:

1. Apply fundamental knowledge of Managerial Economics concepts and tools.
2. Analyze various aspects of Demand Analysis, Supply and Demand Forecasting.
3. Understand Production and Cost relationships to make best use of resources available.
4. Apply Accountancy Concepts and Conventions and preparation of Final Accounts.
5. Evaluate Capital and Capital Budgeting decision based on any technique.

Unit-I

Introduction to Managerial Economics

Introduction to Economics and its evolution - Managerial Economics - its Nature and Scope, Importance; Relationship with other Subjects. Its usefulness to Engineers; Basic concepts of Managerial economics - Incremental, Time perspective, Discounting Principle, Opportunity Cost, Equimarginal Principle, Contribution, Negotiation Principle.

Unit-II

Demand and Supply Analysis

Demand Analysis - Concept of Demand, Determinants, Law of demand - Assumptions and Exceptions; Elasticity of demand - Price, Income and Cross elasticity - simple numerical problems; Concept of Supply - Determinants of Supply, Law of Supply; Demand Forecasting - Methods.

Unit-III

Production and Cost Analysis

Theory of Production - Production function - Isoquants and Isocosts, MRTS, Input-Output Relations; Laws of returns; Internal and External Economies of Scale.

Cost Analysis: Cost concepts – Types of Costs, Cost-Output Relationship – Short Run and Long Run; Market structures – Types of Competition, Features, Price Output Determination under Perfect Competition, Monopoly and Monopolistic Competition; Break-even Analysis – Concepts, Assumptions, Limitations, Numerical problems.


Unit-IV

Accountancy

Book-keeping, Principles and Significance of Double Entry Book Keeping, Accounting Concepts and Conventions, Accounting Cycle, Journalization, Subsidiary books, Ledger accounts, Trial Balance concept and preparation of Final Accounts with simple adjustments. Ratio Analysis.


Unit-V

Capital and Capital Budgeting: Capital and its Significance, Types of Capital, Estimation of Fixed and Working capital requirements, Methods and sources of raising finance. Capital Budgeting, Methods: Traditional and Discounted Cash Flow Methods - Numerical problems.


HEAD
Dept. of EEE, CBIT (A)
Gandipet, Hyderabad - 75


Time Table

Brach: EEE							
Day	9:10 - 10:10	10:10- 11:10	11:15- 12:15	12:15- 13:00	13:00- 14:00	14:00- 15:00	15:05- 16:05
Monday				LUNCH			
Tuesday							
Wednesday	Engineering Economics and Accountancy						
Thursday							
Friday							
Saturday							



HEAD
Dept. of EEE, CBIT (A)
Gandipet, Hyderabad - 75

List of Participants


S. No	Registered and completed student name	Total no.of students Registered and completed
1.	K ABHIRAM	131
2.	G JASWANTH KUMAR YADAV	
3.	PULIPATI KAUSHAL	
4.	KUMMARI CHANDRAKALA	
5.	PUTLA DHARANI	
6.	GUJJA INDRANI	
7.	KAVYA TAMMALI	
8.	CHIMARLA KEERTHANA	
9.	SOLIPURAM KEERTHANA REDDY	
10.	KHYATI BHAREDWAJ	
11.	JAGATHKARI LAXMIPRIYA	
12.	KASHA MAHATHI	
13.	MYAKA MANIDEEPIKA REDDY	
14.	NAZIYA BEGUM	
15.	P NEHASREE	
16.	PRAVEENA BOBBALA	
17.	BAKKAREDDY PRIYANKA	
18.	ERPULA RANI	
19.	BATTULA RASAGNA	
20.	KANDANELLY SAHITHI PRIYA RATHOD	
21.	DARAPU SAI AKSHAYA	
22.	SHIVARATHRI SRAVANI	
23.	NARAYANA SRINIDHI REDDY	
24.	VATTIKONDA SUSHMITHA	
25.	SANIKOMMU VAISHNAVI	
26.	BURRA VARSHITHA	
27.	THODUPUNURI VASAVI	
28.	GUTHA VINUTHNA REDDY	
29.	KANTHALA ADITH CHANDRA	
30.	KULAKARNI ADITHYA	
31.	MOHAMMED AMAAN FAROOQUI	


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32.	K CHINNA RAMUDU
33.	KOBBAI DILEEP KUMAR
34.	KSHITEISSH BHARADWAJ
35.	AGGADI MANI DEEP
36.	NABEEL KHAN
37.	NAMAN GUPTA
38.	AMANCHI NAVEEN
39.	NAVID PABANI
40.	NARAYANA NITHIN
41.	GUGGILLA RAGHAVESHWAR
42.	MOTUPALLI RAMA KRISHNA SAI
43.	ARRA RASHMITH REDDY
44.	CHILLAMCHARLA SAI RAGHU
45.	D SAI SIDHARTH KASHYAP
46.	MOTHUKURI SAI SRINIVAS
47.	VANGALA SAI SRUJAN
48.	GUDIMALLA SANJAY
49.	M SHANMUKHESH
50.	BOGE SIDDARTH
51.	M SUHAS REDDY
52.	G TARUN
53.	NUGURI TARUN
54.	VEERAPRADYUN GONUGONDLA
55.	KALVA VENU
56.	KATAKAM VINAY KUMAR
57.	CHENNA VINEETH
58.	VISHWAS P
59.	ZIYAD AHMED MOHAMMED
60.	BIRRU VEDAVYAS
61.	T KARTHIK
62.	MUNJA YAMINI
63.	RAMAVATH SAIKUMAR
64.	AJAY KUMAR SAHANI
65.	KURMA RAVI


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 Dept. of EEE, CBIT (A)
 Gandipet, Hyderabad - 75

66.	NAREN KUMAR A
67.	KONDETI AMMULU
68.	GUDURI LAKSHMI SRI VENKATA JAHNAVI
69.	LAVANYA TELAPUDI
70.	AMGOTH MOUNIKA NAYAK
71.	A NEHA SARASWATHI
72.	TUPPATHI PRIYANKA
73.	RAVALI L
74.	DASARI RISHIKA
75.	A SAI TEJASWINI
76.	GILAKATHULA SHRINIJA
77.	Y J M SOWMYA
78.	ABHILASH BUDHARAPU
79.	MANIKONDA ABHIROOP
80.	NAGELLY AKSHITH
81.	M ARUN KUMAR
82.	TODUPUNOORI BHARATH
83.	ARUMULLA DHEERAJ
84.	HARSHITH MOLUGU
85.	MATHALAPURAM HIMANTH KUMAR
86.	VUKANTI INDRASENA REDDY
87.	M KALYAN SAI VINAY
88.	S KARTHIK
89.	NANAVATH KISHAN
90.	CHOPPAKATLA KOUSHIK
91.	YELURIPATI S V KRISHNA KARTHIK
92.	VIJAGIRI MANIDEED
93.	G MANIKANTH REDDY
94.	TUMMALA MANIVER
95.	CHINDAM MANOJ KUMAR
96.	MOHAMMED AMAAN
97.	PASUPULETI MOHIT SRINIVAS MAHAVEER
98.	P PHANI MUDIGONDA
99.	LAVUDYA PAVAN


HEAD
 Dept. of EEE, CBIT (A)
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100.	DHARMOJU PAVAN KUMAR
101.	RAMAGIRI POOJITH
102.	RAKESH GORATI
103.	G RAKESH GOUD
104.	T SAGAR
105.	R SAI DEEKSHITH
106.	KAVALI SAI KRISHNA
107.	VOGGU SAI KRISHNA
108.	CHINNAM SAI KUMAR
109.	AARE SAI PRANAY REDDY
110.	SAI ROHIT KAPPALA
111.	NARAHARI SAI TEJA
112.	KUNREDDY SHYAM SUNDER REDDY
113.	D SRINIVASA REDDY
114.	K SURYA RAJ
115.	CHITTI SURYATEJA REDDY
116.	BANDARI SWAMY DEVENDER VARDHAN
117.	NULIGONDA VASHIST
118.	V VISWANATH REDDY
119.	A S N YASHWANTH
120.	B YASHWANTH
121.	RAYANKULA YESHWANTH
122.	D RATHANAKAR REDDY
123.	K MALLESH
124.	P NAGARAJU
125.	YENUGANDULA RANADHEER
126.	KARNATI NAGANJANI
127.	KOTHAKONDA AKARSH
128.	AMBATI ANIL KUMAR
129.	KANDUKURI SAI SHEETAL
130.	KARISHMA BEGUM
131.6	ABBAGOWNI AKASH


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TITLE OF THE VALUE ADDED COURSE

Basics of Cyber Security (BCS)

Code: CBIT/ 18CSO07


Duration: 30 Hours

Academic year: 2020-21


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Dept. of EEE, CBIT (A)
Gandipet, Hyderabad - 75

Time Table


Brach: EEE							
Day	9:10 - 10:10	10:10- 11:10	11:15- 12:15	12:15- 13:00	13:00- 14:00	14:00- 15:00	15:05- 16:05
Monday	Basics of Cyber Security (BCS)			LUNCH			
Tuesday							
Wednesday							
Thursday							
Friday							
Saturday							


HEAD
Dept. of EEE, CBIT (A)
Gandipet, Hyderabad - 75


List of Participants

S. No	Name of the Student
1.	G JASWANTH KUMAR YADAV
2.	PULIPATI KAUSHAL
3.	KUMMARI CHANDRAKALA
4.	PUTLA DHARANI
5.	GUJJA INDRANI
6.	KAVYA TAMMALI
7.	CHIMARLA KEERTHANA
8.	SOLIPURAM KEERTHANA REDDY
9.	JAGATHKARI LAXMIPRIYA
10.	KASHA MAHATHI
11.	MYAKA MANIDEEPIKA REDDY
12.	P NEHASREE
13.	ERPULA RANI
14.	BATTULA RASAGNA
15.	DARAPU SAI AKSHAYA
16.	SHIVARATHRI SRAVANI
17.	NARAYANA SRINIDHI REDDY
18.	VATTIKONDA SUSHMITHA
19.	SANIKOMMU VAISHNAVI
20.	THODUPUNURI VASAVI
21.	GUTHA VINUTHNA REDDY
22.	KANTHALA ADITH CHANDRA
23.	KULAKARNI ADITHYA
24.	MOHAMMED AMAAN FAROOQUI
25.	K CHINNA RAMUDU
26.	KOBBAI DILEEP KUMAR
27.	AGGADI MANI DEEP
28.	NABEEL KHAN
29.	NAMAN GUPTA


30.	AMANCHI NAVEEN
31.	NAVID PABANI
32.	GUGGILLA RAGHAVESHWAR
33.	MOTUPALLI RAMA KRISHNA SAI
34.	ARRA RASHMITH REDDY
35.	D SAI SIDHARTH KASHYAP
36.	VANGALA SAI SRUJAN
37.	M SHANMUKHESH
38.	BOGE SIDDARTH
39.	NUGURI TARUN
40.	KALVA VENU
41.	KATAKAM VINAY KUMAR
42.	CHENNA VINEETH
43.	VISHWAS P
44.	ZIYAD AHMED MOHAMMED
45.	MUNJA YAMINI
46.	RAMAVATH SAIKUMAR
47.	SHAIK NEHA GULSHAN
48.	PAPIGARI AKSHAY KUMAR
49.	BHARGAVI SINGAJOGI
50.	CHELLA MEENAKSHI S
51.	LOHITHA REDDY ANNADI
52.	MANASVINI KOTTAPALLY
53.	SURUKANTI NISHITHA
54.	NISHMA REDDY KASTURI
55.	RACHEL A
56.	RISHITHA ARIKOTLA
57.	SAI VARSHA MAKTHAL
58.	SANDHYA KORRA
59.	THUMU SNEHA BHANDHAVI
60.	SOUMYA BANDLA


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61.	GUDIVENUKA SRAVANTHI
62.	SADINENI SRAVANTHI
63.	SANKARNENI SRAVYA
64.	SREE VIDYA GOLLA
65.	SUNITHA RANI PITLA
66.	KURMA RAVI
67.	UMMAY SALMA
68.	M ABHISHEK
69.	MUTHYALA ABHISHEKH
70.	AJAY GUNNALA
71.	MORE AKSHAY
72.	CHAKRAVARTHY DANGATLA
73.	CHERUPALLY CHARAN KUMAR
74.	DINESH BUKYA
75.	HARI KIRAN VAGIRI
76.	JAYANTH DARAMALLA
77.	JEEVAN KUMAR G
78.	PANDULA MANIDEEP
79.	RAKESH ANNAM
80.	SAILLOKESH REDDY NANDAVARAPU
81.	KOTHAKONDA SAI TEJA
82.	SAIKIRAN KOLLOJU
83.	LAKKARSU SAITEJA VARMA
84.	SOHAN KUMAR RUSTUMPET
85.	SRI SAI WENKAT NIZAMPATNAM
86.	SRI VAMSI DEEVI
87.	SRINIVAS GAURAV JAMALPUR
88.	MUTHYALA SUJITH REDDY


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89.	SUMANTH SETTY
90.	DODDI UDAY SHANKAR
91.	VENKATA MANIKANTA SAI AMALAKANTI
92.	THADURI VENKATESH BABU
93.	BODDU YESHWANTH KUMAR
94.	VENKANNAGARI YOGESH
95.	DOKILE UMESH
96.	RAYABARAPU NAVYA
97.	VADDADI VIKAS
98.	NENAVATH PRASHANTH
99.	GANASALA HEPSIBA RANI
100.	P CHAKRADHAR


HEAD
Dept. of EEE, CBIT (A)
Gandipet, Hyderabad - 75


TITLE OF THE VALUE ADDED COURSE:

History of Science and Technology


Target Participants – SEMESTER-VIII

Duration of the Course: 11.02.2021 TO 17.04.2021

ACADEMIC YEAR: 2020-21



Professor & Head
Department of Physics
Chaitanya Bharathi Institute of Technology (A)
Gandipet, Hyderabad-500075.

Name of the value added courses (with 30 or more contact hours) offered	Course code (if any)	Year of offering	No. of times offered during the same year	Duration of course in Hourse	No. of students enrolled in the year	No. of students completing the course in the year
History of science & Technology	NA	2020-21	1	40	31	31


 Professor & Head
 Department of Physics
 Chaitanya Bharathi Institute of Technology (A)
 Gandipet, Hyderabad-500075.

List of Participants

S.No	Roll Number	Name of the Student
1	1601-17-733-005	CHARITHA P
2	1601-17-733-007	KHAZIELAKHA SANA SIMRAN
3	1601-17-733-008	KINNERA REDDY BASANI
4	1601-17-733-013	RISHIKA REDDY PATLOLLA
5	1601-17-733-014	MANDALIKA SAI PRERANA
6	1601-17-733-020	SISIRA
7	1601-17-733-021	ERDANI STELLA RAMOLA
8	1601-17-733-023	ABDUL QAVI
9	1601-17-733-024	C M ABHIRAM REDDY
10	1601-17-733-025	CHALLA ABISHEK
11	1601-17-733-026	S CHAKRADHAR
12	1601-17-733-028	MAKWANA GOPI KUMAR
13	1601-17-733-031	SUTRAVE KANISHKA
14	1601-17-733-032	MOHAMMED SAFI AMMAR
15	1601-17-733-033	MOHAMMED ZUBAIR AHMED
16	1601-17-733-034	POTTA NIKHIL
17	1601-17-733-041	SAAD AHMED
18	1601-17-733-042	SAGNIK ROY
19	1601-17-733-043	K SAI ROHITH RAJ GOUD
20	1601-17-733-048	SUBBAGARI SHREEYESH REDDY
21	1601-17-733-050	MUDUMBA SRI SAI SRAVAN
22	1601-17-733-051	KANDI SRIDHAR
23	1601-17-733-052	PARSI SRIJAY
24	1601-17-733-053	BRAHMESHWARKAR SRINATH
25	1601-17-733-056	SINGAPANGA TEJA VAMSHI
26	1601-17-733-057	VARUN SUNDARAM
27	1601-17-733-058	THOTA VENKATA SAI TEJA
28	1601-17-733-059	YERROLLA VINAY KUMAR
29	1601-17-733-060	SRIRANGAM VINEETH
30	1601-17-733-061	ABHAY SINGH BALORIA
31	1601-16-733-035	MITHILESH M


Professor & Head
Department of Physics
Chaitanya Bharathi Institute of Technology (A)
Gandipet, Hyderabad-500075.

TITLE OF THE VALUE ADDED COURSE

Industrial Exposure
Code: CBIT/20EEV04

Duration: 40Hours

Academic year: 2021-22



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Gandipet, Hyderabad - 75

Syllabus:

Instruction Any one Industry Visit
Sessional /Examination *Grade

Course Objectives: The objective of the course is to


1. Physically see the process of manufacturing procedure and steps involved.
2. Collect the information in respect of materials, sources of supply.
3. Understand the sequential stages involved in manufacturing process.
4. Understand the procedure to write the 'industry visit' technical report by compiling all the information collected during the visit.
5. Understand the safety procedures and pre-cautions followed in Industry, confidentiality of the process and the man power required.

Course Outcomes: After completion of the course the student will be able to

1. Know the importance of visiting an engineering industry from the point of view of process of manufactory procedures and set-up.
2. Summarize the required information with regard to materials, source of supply in respect of a product.
3. Know the stages in manufactory of a product.
4. Prepare the 'industry visit' technical report covering the details of visit and it importance.
5. Visualize the safety precautions to be follow in industry, confidentiality of the product processing as the man power required.


Students are expected to visit at least one industry during the semesters from 4th to 7th and submit a detailed technical report on the study -visit to the Department. The Department should evaluate the report through a Committee consisting of Head of the Department and two more faculty members to award the Grades *.

* Satisfactory /Unsatisfactory.


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Dept. of EEE, CBIT (A)
Gandipet, Hyderabad - 75


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Day	9:10 - 10:10	10:10- 11:10	11:15- 12:15	12:15- 13:00	13:00- 14:00	14:00- 15:00	15:05- 16:05
Monday				LUNCH			
Tuesday							
Wednesday		Industrial Exposure				Industrial Exposure	
Thursday							
Friday	Industrial Exposure						Industrial Exposure
Saturday							



HEAD
Dept. of EEE, CBIT (A)
Gandipet, Hyderabad - 75

List of Participants:-


SNo	Roll No	Name of the student	Total no of participants
1.	160117734019	Abhiram	131
2.	160117734029	Golla Jaswanth Kumar Yadav	
3.	160117734031	Pulipati Kaushal	
4.	160118734001	KUMMARI CHANDRAKALA	
5.	160118734002	PUTLA DHARANI	
6.	160118734003	GUJJA INDRANI	
7.	160118734004	KAVYA TAMMALI	
8.	160118734005	CHIMARLA KEERTHANA	
9.	160118734006	SOLIPURAM KEERTHANA REDDY	
10.	160118734007	khyati bharedwaj	
11.	160118734008	JAGATHKARI LAXMIPRIYA	
12.	160118734009	KASHA MAHATHI	
13.	160118734010	MYAKA MANIDEEPIKA REDDY	
14.	160118734011	NAZIYA BEGUM	
15.	160118734012	P NEHASREE	
16.	160118734013	PRAVEENA BOBBALA	
17.	160118734014	BAKKAREDDY PRIYANKA	
18.	160118734015	ERPULA RANI	
19.	160118734016	BATTULA RASAGNA	
20.	160118734017	KANDANELLY SAHITHI PRIYA RATHOD	
21.	160118734018	DARAPU SAI AKSHAYA	
22.	160118734019	SHIVARATHRI SRAVANI	
23.	160118734020	NARAYANA SRINIDHI REDDY	
24.	160118734021	VATTIKONDA SUSHMITHA	
25.	160118734022	SANIKOMMU VAISHNAVI	
26.	160118734023	BURRA VARSHITHA	
27.	160118734024	THODUPUNURI VASAVI	
28.	160118734025	VINUTHNA REDDY GUTHA	
29.	160118734026	KANTHALA ADITH CHANDRA	
30.	160118734027	KULAKARNI ADITHYA	
31.	160118734028	MOHAMMED AMAAN FAROOQUI	
32.	160118734029	K CHINNA RAMUDU	
33.	160118734030	KOBBAI DILEEP KUMAR	


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34.	160118734031	KSHITEISSH BHARADWAJ
35.	160118734032	AGGADI MANI DEEP
36.	160118734033	NABEEL KHAN
37.	160118734034	Naman Gupta
38.	160118734035	AMANCHI NAVEEN
39.	160118734036	NAVID PABANI
40.	160118734037	NARAYANA NITHIN
41.	160118734039	GUGGILLA RAGHAVESHWAR
42.	160118734040	MOTUPALLI RAMA KRISHNA SAI
43.	160118734041	ARRA RASHMITH REDDY
44.	160118734042	CHILLAMCHARLA SAI RAGHU
45.	160118734043	D SAI SIDHARTH KSHYAP
46.	160118734044	MOTHUKURI SAI SRINIVAS
47.	160118734045	VANGALA SAI SRUJAN
48.	160118734046	GUDIMALLA SANJAY
49.	160118734047	M SHANMUKHESH
50.	160118734049	BOGE SIDDARTH
51.	160118734050	SUHAS REDDY M
52.	160118734051	G TARUN
53.	160118734052	NUGURI TARUN
54.	160118734053	VEERAPRADYUN GONUGONDLA
55.	160118734054	KALVA VENU
56.	160118734055	KATAKAM VINAY KUMAR
57.	160118734056	CHENNA VINEETH
58.	160118734057	VISHWAS P
59.	160118734058	ZIYAD AHMED MOHAMMED
60.	160118734301	BIRRU VEDAVYAS
61.	160118734302	T KARTHIK
62.	160118734303	MUNJA YAMINI
63.	160118734304	RAMAVATH SAIKUMAR
64.	160118734305	AJAY KUMAR SAHANI
65.	160118734306	KURMA RAVI
66.	160117734094	Chitla Pavan
67.	160117734119	Guda Yashwanth Kumar Reddy
68.	160118734061	BHARGAVI SINGAJOGI
69.	160118734062	CHELLA MEENAKSHI S
70.	160118734063	KAVYA PINNEBOINA


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 Gandipet, Hyderabad - 75

71.	160118734064	LOHITHA REDDY ANNADI
72.	160118734065	MANASVINI KOTTAPALLY
73.	160118734066	SURUKANTI NISHITHA
74.	160118734067	NISHMA REDDY KASTURI
75.	160118734068	RACHEL A
76.	160118734069	RISHITHA ARIKOTLA
77.	160118734070	SAI VARSHA MAKTHAL
78.	160118734071	SANDHYA KORRA
79.	160118734072	THUMU SNEHA BHANDHAVI
80.	160118734073	SOUMYA BANDLA
81.	160118734074	GUDIVENUKA SRAVANTHI
82.	160118734075	SADINENI SRAVANTHI
83.	160118734076	SANKARNENI SRAVYA
84.	160118734077	SREE VIDYA GOLLA
85.	160118734078	SUNITHA RANI PITLA
86.	160118734079	UMMAY SALMA
87.	160118734080	M ABHISHEK
88.	160118734081	MUTHYALA ABHISHEKH
89.	160118734082	AJAY GUNNALA
90.	160118734083	MORE AKSHAY
91.	160118734084	CHAKRAVARTHY DANGATLA
92.	160118734085	CHERUPALLY CHARAN KUMAR
93.	160118734086	DINESH BUKYA
94.	160118734087	ESWAR TEJA CHAVA
95.	160118734088	HARI KIRAN VAGIRI
96.	160118734089	JAYANTH DARAMALLA
97.	160118734090	JEEVAN KUMAR G
98.	160118734091	GULLAPALLI LOKESH
99.	160118734092	PANDULA MANIDEEP
100.	160118734094	DONTHULA NAVEEN
101.	160118734095	PRUDHVI MURUKUTLA
102.	160118734097	RAKESH ANNAM
103.	160118734099	SAI LOKESH REDDY NANDAVARAPU
104.	160118734100	KOTHAKONDA SAI TEJA
105.	160118734101	SAIKIRAN KOLLOJU
106.	160118734102	LAKKARSU SAITEJA VARMA
107.	160118734104	SHERANK DASARATH


HEAD
 Dept. of EEE, CBIT (A)
 Gandipet, Hyderabad - 75

108.	160118734105	SHIVA ANIMESH REDDY CHITTI
109.	160118734106	SOHAN KUMAR RUSTUMPET
110.	160118734107	SRI SAI WENKAT NIZAMPATNAM
111.	160118734108	SRI VAMSI DEEVI
112.	160118734109	SRINIVAS GAURAV JAMALPUR
113.	160118734110	SUJITH REDDY MUTHYALA
114.	160118734111	SUMANTH SETTY
115.	160118734112	TARUN CH NSNS
116.	160118734113	DODDI UDAY SHANKAR
117.	160118734114	VENKATA MANIKANTA SAI AMALAKANTI
118.	160118734115	VENKATA SAI VARUN P
119.	160118734116	THADURI VENKATESH BABU
120.	160118734117	MOVVA VINAY
121.	160118734118	BODDU YESHWANTH KUMAR
122.	160118734119	VENKANNAGARI YOGESH
123.	160118734307	DOKILE UMESH
124.	160118734308	RAYABARAPU NAVYA
125.	160118734309	VADDADI VIKAS
126.	160118734310	VALUPADASU BUDDIK VARARAJ
127.	160118734311	NENAVATH PRASHANTH
128.	160118734312	GANASALA HEPSIBA RANI
129.	160118734313	P CHAKRADHAR
130.	160117734004	K NAVEENA
131.	160117734008	RAMYA SREE PALA


HEAD
 Dept. of EEE, CBIT (A)
 Gandipet, Hyderabad - 75

TITLE OF THE VALUE ADDED COURSE

Machine Learning Using Python

Code: CBIT/ 18CSO07

Duration: 30 Hours


Academic year: 2020-21



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Gandipet, Hyderabad - 75


Time Table

Brach: EEE							
Day	9:10 - 10:10	10:10- 11:10	11:15- 12:15	12:15- 13:00	13:00- 14:00	14:00- 15:00	15:05- 16:05
Monday				LUNCH			
Tuesday							
Wednesday							
Thursday							
Friday							
Saturday							Machine Learning Using Phyton



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Dept. of EEE, CBIT (A)
Gandipet, Hyderabad - 75

List of Participants

S.NO	Registered and completed student name	Total no.of students Registered and completed
1.	KETHAVATH HEMACHANDRA NAIK	53
2.	MUKKA LAVANYA	
3.	SURYA ARUNKUMAR GOUD	
4.	BALAKRISHNA REDDY K	
5.	GAINI BARGAV CHAITANYA	
6.	YASA INDRA KUMAR REDDY	
7.	LALITH CHANDRIL REDDY M	
8.	SUREPALLI MUKESH	
9.	PAVAN P	
10.	ANKATHI RAVIVARMA	
11.	RUTHVIK P	
12.	SAI NIKHIL RAO G	
13.	ARIMANDA SAI SASANK REDDY	
14.	SAI SUNAYAN G	
15.	SAIDEBAJI SK	
16.	SHIVA CHARAN PRASAD J	
17.	SUDHEER A	
18.	THARUN R	
19.	VIDHYASAGAR J	
20.	M SHARATH	
21.	JAKKULA VINAY	
22.	MOHAMMAD NAJEEB UR RAHAMAN	
23.	GUDELLI SHIVA KUMAR	
24.	PULLA RAJU	
25.	MUDEDLA SHRUTHI	
26.	SAPPIDI PAVAN KALYAN	
27.	AKANKSHA REDDY A	
28.	ALEKHYA UPPUTURI	
29.	ANUHYA B	
30.	CHINTHAKINDI RAMANI	
31.	BADETI RATNA MANJUSHA	


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32.	SAI KRITHI J
33.	SANJANA S
34.	BHATTA SRI RAGA
35.	SRICHANDANA K
36.	ANDRUS SANATH ROY O
37.	GADDAM ARUNTEJA
38.	LENKALAPELLI BALAJI
39.	TELLA BHARATH KUMAR
40.	GOKUL CHANDRA P
41.	HARISH T
42.	KIRAN KUMAR T
43.	NIKHIL KUMAR G
44.	PRANAY P
45.	PRUTHVI RAJ A
46.	RAHUL B
47.	VENKATESH CH
48.	VIJAY ASHRITH KUMAR B
49.	YASH SHARMA
50.	MUTHYALA RISHIKESH
51.	ALLAM SRIJA
52.	BHUKYA BALRAM
53.	REDDYPELLI SUPRITHA


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TITLE OF THE VALUE ADDED COURSE

Industrial Administration and Financial Management (IAFM)

Code: CBIT/ 16 ME O08

Duration: 30 Hours

Academic year: 2020-21


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16ME 008**INDUSTRIAL ADMINISTRATION AND FINANCIAL MANAGEMENT**

Instruction	3 Hours per week
Duration of Semester End Examination	3 Hours
Semester End Examination	70 Marks
CIE	30 Marks
Credits	3

Objectives: Students able to learn

1. Various types of business organizations and organization structures and importance of plant location and plant layout.
2. Importance of industrial engineering techniques like method study and work measurement.
3. The significance of quality control and production planning and control
4. The importance of project management techniques
5. The total cost of a product based on elements of cost

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

1. Understand the role of different types of business organizations along with the need and importance of various types of layouts used in manufacturing industries
2. Apply the techniques of method study and work measurement in industry to enhance productivity
3. Understand the importance of quality control and plot the control charts
4. Apply the techniques of project management in industry
5. Calculate the total cost of the product based on its elements.

UNIT-I

Industrial Organization: Definition of an organization, types of various business organizations, organization structures and their relative merits and demerits, functions of management.

Plant location and layouts: Factors affecting the location of plant and layout, types of layouts and their merits and demerits.

UNIT-III

Inspection and quality control: Types and objectives of inspection, S.Q.C., its principles. Quality control chart and sampling plans, quality circles, introduction to ISO.

Production planning and control: Types of manufacture, types of production, principles of PPC and its function, production control charts.

UNIT-IV

Optimization: Introduction to linear programming and graphical solutions, assignment problems.

Project Management: Introduction to CPM and PERT, determination of critical path.

Material Management: Classification of materials, materials planning, duties of purchase manager, determination of economic ordering quantities, types of materials purchase.

UNIT-V

Cost accounting: Elements of cost, various costs, types of overheads, break even analysis and its applications, depreciation, methods of calculating depreciation fund, nature of financial management, time value of money, techniques of capital budgeting and methods, cost of capital, financial leverage.

Text Books:


1. Pandey I.M. , "Elements of Financial Management", Vikas Publ. House, New Delhi, 1994.
2. James C Van Horne, John M Wachowicz, Jr., "Fundamentals of Financial Management", 13/e, Prentice Hall Financial Times.
3. Khanna O.P., "Industrial Engineering and Management", Dhanapat Rai & Sons.

Suggested Reading:

1. S.N. Chary, "Production and Operations Management", 3/e, Tata McGraw Hill, 2006.
2. Paneer Selvam, "Production and Operations Management", Pearson Education, 2007.
3. Joseph Monk, "Operations Management", TMH Publishers, New Delhi, 2004.


Time Table

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Day	9:10 - 10:10	10:10- 11:10	11:15-12:15	12:15- 13:00	13:00- 14:00	14:00- 15:00	15:05- 16:05
Monday				LUNCH			
Tuesday							
Wednesday							
Thursday							
Friday							
Saturday			Industrial Administration and Financial Management (IAFM)				



HEAD
 Dept. of EEE, CBIT (A)
 Gandipet, Hyderabad - 75

List of Participants

S.NO	Registered and completed student name	Total no.of students Registered and completed
1.	ISMAIL AHMED	39
2.	BOYINI AKANKSHA YADAV	
3.	MAMILLAPALLY GAYATHRI	
4.	GEETHA BHARGAVI K	
5.	KEERTHI REDDY K	
6.	MUKKA LAVANYA	
7.	MOUNIKA G	
8.	PRADEEPA CH	
9.	SAI PRIYANKA T	
10.	SHAIK AISHA	
11.	SHASHIKALA M	
12.	SHIVANI RAJU T	
13.	SHRAVYA M	
14.	GADDAMIDI SHRUTHI REDDY	
15.	TAKKOLI SHRUTHI SRI	
16.	SRILEKHA CH	
17.	BYREDDY SRINIDHI REDDY	
18.	SRIVIDYA B	
19.	VENNELA REDDY K	
20.	ABHISHEK NARAYANA D	
21.	SURYA ARUNKUMAR GOUD	
22.	SUDHEER A	
23.	TARUN K	
24.	PULLA RAJU	
25.	KOYALAKONDA JYOTHIRMAI	
26.	MUDEDLA SHRUTHI	
27.	SAPPIDI PAVAN KALYAN	
28.	KONAM AMULYA	
29.	EPPA RAMNIVAS	
30.	POLE YADAGIRI	
31.	AKANKSHA REDDY A	
32.	ALEKHYA UPPUTURI	
33.	PRATYUSHA REDDY V	


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34.	CHINTHAKINDI RAMANI
35.	BADETI RATNA MANJUSHA
36.	RITIKA SINGH
37.	SANJANA S
38.	N VENKATA RAMANA ROHITH
39.	YASH SHARMA


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TITLE OF THE VALUE ADDED COURSE

IOT and Applications

Code: CBIT/ 16CS 003

Duration: 30 Hours

Academic year: 2020-21



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Dept. of EEE, CBIT (A)
Gandipet, Hyderabad - 75

Syllabus

CBIT (A)

With Effect from the Academic Year 2019-2020

16CS 003

IOT AND APPLICATIONS

Instruction	3 Hours per week
Duration of Semester End Examination	3 Hours
Semester End Examination	70 Marks
CIE	30 Marks
Credits	3

Pre-requisites: Programming Basics.

Course Objectives: The main objectives of this course are:

1. Impart necessary and practical knowledge of components in Internet of Things.
2. Understand working of IoT Systems.
3. Develop skills required to build IoT based systems.

Course Outcomes: On Successful completion of this course, student will be able to


1. Understand Internet of Things and its hardware and software components.
2. Interface I/O devices, sensors & communication module.
3. Remotely monitor data and control devices.
4. Develop real time IoT based projects.
5. Advance towards research based IoT.

UNIT-I

Introduction to IoT: Sensors, Types of sensors and Transducers, Actuators and Types of Actuators.

UNIT-II

Basics of Networking: Functional Components of IoT, IoT interdependencies, IoT Service oriented architecture, IoT categories, IoT gateways, IoT and associated technologies, Key technologies for IoT, IoT challenges.


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Online Resources:

1. Li Da Xu, Wu He, and Shancang Li, "Internet of Things in Industries: A Survey", IEEE Transactions on Industrial Informatics, Vol. 10, No. 4, Nov. 2014.
2. Gotovtsev, Pavel M., and Andrey V. Dyakov. "Biotechnology and Internet of Things for green smart city application." 2016 IEEE 3rd World Forum on Internet of Things (WF-IoT). IEEE, 2016.
3. Yanjing, Sun, et al. "Research and design of agriculture informatization system based on IOT." Journal of Computer Research and Development 48 (2011): 316-331.
4. Somov, Andrey, et al. "Bacteria to power the smart sensor applications: Biofuel cell for low-power IoT devices." 2018 IEEE 4th World Forum on Internet of Things (WF-IoT). IEEE, 2018.
5. Han, Shuqing, et al. "Analysis of the frontier technology of agricultural IoT and its predication research." IOP Conference Series: Materials Science and Engineering. Vol. 231. No. 1. IOP Publishing, 2017.

CBIT (A)

With Effect from the Academic Year 2019-2020

UNIT – V

IoT Systems and Applications: Smart Lighting, Weather Monitoring System, Weather Reporting Bot, Forest Fire Detection, Alcohol Detection System, Smart Parking Environment., Drip-irrigation, Biological water treatment system, Work flow Automation in Industries, Smart Intrusion Detection System, monitoring space risks and hazardous conditions in industrial regions like underground tanks , trap door margins.

Text Books:


1. Raj and Anupama C. Raman, "The Internet of Things: Enabling Technologies, Platforms, and Use Cases", CRC Press, 2017.
2. Jeeva Jose, "Internet of Things", Khanna Publishing House, Delhi, 2018.
3. Arshdeep Bahga and Vijay Madisetti, "Internet of Things: A Hands-on Approach", Universities Press, 2014.

Suggested Reading:

1. Dr. SRN Reddy, Rachit Tirnkral and Manasi Mishra, "Introduction to Internet of Things: A practical Approach", ETI Labs, 2018.
2. Adrian McEwen, "Designing the Internet of Things", Wiley, 2013.
3. Raj Kamal, "Internet of Things: Architecture and Design", McGraw Hill, 2017.
4. Cuno Pfister, "Getting Started with the Internet of Things", O'Reilly Media, 2011.
5. O. Vermesan, P. Friess, "Internet of Things – Converging Technologies for Smart Environments and Integrated Ecosystems", River Publishers, Series in Communications, 2013.


Time Table

Brach: EEE							
Day	9:10 - 10:10	10:10- 11:10	11:15- 12:15	12:15- 13:00	13:00- 14:00	14:00- 15:00	15:05- 16:05
Monday				LUNCH			
Tuesday							
Wednesday							
Thursday							
Friday							
Saturday						IOT and Applications	


HEAD
Dept. of EEE, CBIT (A)
Gandipet, Hyderabad - 75

List of Participants

S.NO	Registered and completed student name	Total no.of students Registered and completed
1.	M SAI SHASHANK RATHOD	28
2.	MUDAVATH PRIYANKA	
3.	MARRY REVATHI	
4.	PULIMAMIDI PAVAN	
5.	AKULA PREM KUMAR	
6.	MUNJALA SAI CHARAN	
7.	P SRIKANTH	
8.	S YOGANAND SAGAR	
9.	M KALYAN SAI VINAY	
10.	KARRA NIKHIL REDDY	
11.	MD. BAQTIYAR WAHED SUMAIR	
12.	MALOTH HIMABINDU	
13.	NAREN KUMAR A	
14.	ABHILASH BUDHARAPU	
15.	HARSHITH MOLUGU	
16.	M KALYAN SAI VINAY	
17.	NANAVATH KISHAN	
18.	CHOPPAKATLA KOUSHIK	
19.	YELURIPATI S V KRISHNA KARTHIK	
20.	VIJAGIRI MANIDEED	
21.	MOHAMMED AMAAN	
22.	DHARMOJU PAVAN KUMAR	
23.	G RAKESH GOUD	
24.	K SURYA RAJ	
25.	CHITTI SURYATEJA REDDY	
26.	NULIGONDA VASHIST	
27.	A S N YASHWANTH	
28.	B YASHWANTH	


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CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY
Department of Mechanical Engineering
1.3.2 and 1.3.3 – details and proofs

Key Indicator -1.3 Curriculum Enrichment (40)

1.3.2 Number of value-added courses imparting transferable and life skills offered during the last five years (10)

1.3.3 Average Percentage of students enrolled in the courses under 1.3.2 above (10)

Year - 2 (2020-21)

SI No	Name of the value added courses (with 30 or more contact hours) offered during last five years	Course Code	Year of offering	No. of times offered during the same year	Year of discontinuation	Number of students enrolled in the year	Number of students completing the course in the year	Proof page no
1	Work System Design	CBIT/19 MEV046	Sep-Dec 2020	1	Still Continued	1	1	4-6
2	Mechanical Measurement Systems	CBIT/19 MEV058	Jan-Mar 2021	1	Still Continued	2	2	7-9
3	Robotics and Control: Theory and Practice	CBIT/19 MEV073	Jan-Mar 2021	1	Still Continued	3	3	10-12
4	Innovation by Design	CBIT/19 MEV055	Feb-Mar 2021	1	Still Continued	4	4	13-15
5	Data Base Management System	CBIT/19 MEV074	Sep-Nov 2020	1	Still Continued	1	1	16-18
6	NPTEL Believer	CBIT/19 MEV021	Jan-Apr 2021	1	Still Continued	1	1	-
7	Deep Learning	CBIT/19 MEV075	Jan-Apr 2021	1	Still Continued	1	1	19-20
8	The Joy of Computing using Python	CBIT/19 MEV020	Jan-Apr 2021	1	Still Continued	1	1	21-22
9	Numerical Methods for Engineers	CBIT/19 MEV072	Sep-Dec 2020	1	Still Continued	2	2	23-25
10	Industrial Safety Engineering	CBIT/19 MEV043	Sep-Dec 2020	1	Still Continued	1	1	26-28
11	Automation in manufacturing	CBIT/19 MEV041	Sep-Dec 2020	1	Still Continued	2	2	29-31
12	Design Thinking - A Primer.	CBIT/19 MEV054	Feb-Mar 2021	1	Still Continued	2	2	32-33


PROFESSOR & HEAD
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 Chaitanya Bharathi Institute of Technology (A)
 Gandipet, Hyderabad-500 075, Telangana

Sl No	Name of the value added courses (with 30 or more contact hours) offered during last five years	Course Code	Year of offering	No. of times offered during the same year	Year of discontinuation	Number of students enrolled in the year	Number of students completing the course in the year	Proof page no
13	Aircraft Propulsion	CBIT/19 MEV063	Sep-Dec 2020	1	Still Continued	1	1	34-36
14	Data Science Math Skills	CBIT/19 MEV012	May, 2021	1	Still Continued	1	1	37-39
15	Enhancing Soft Skills & Personality	CBIT/19 MEV013	Feb-Apr 2021	1	Still Continued	1	1	40-43
16	Programming for Everybody (Geeting started with Python)	CBIT/19 MEV002	July, 2020	1	Still Continued	1	1	44-45
17	Python Data Structure	CBIT/19 MEV003	Aug, 2020	1	Still Continued	1	1	46-47
18	Data Science - Internshala	CBIT/19 MEV014	July, 2020	1	Still Continued	1	1	48-49
19	Solidworks-Internshala	CBIT/19 MEV015	July, 2020	1	Still Continued	1	1	50-51
20	Data Structures & Algorithms-Internshala	CBIT/19 MEV016	June, 2021	1	Still Continued	1	1	52-53
21	Introduction to Artificial Intelligence (AI)	CBIT/19 MEV017	July, 2020	1	Still Continued	1	1	54-55
22	Introduction to CSS3	CBIT/19 MEV018	Aug, 2020	1	Still Continued	1	1	56-58
23	Introduction to HTML5	CBIT/19 MEV019	July, 2020	1	Still Continued	1	1	59-60
24	Mechanics of Materials II: Thin Walled Pressure Vessels and Torsion	CBIT/19 MEV006	Aug, 2020	1	Still Continued	1	1	61-62


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Chaitanya Bharathi institute of Technolgy, Gandipet, Hyderabad
Departement of Mechanical Engineering
Circular

30/12/2020

Sub : Value added courses of 2020-21 Even semester- Announcement

To enhance the knowledge in various areas beyond curriculam the MOOC courses are recommended from NPTEL, COUSERA, UDEMY etc. In this regard I am herewith forwarding the NPTEL Jan-Apr 2021 Semester Courses Information. The interested students may register for the same and the same may be intimated to the under signed so that a mentor will be allotted to you.

The important timeline schedule is furnished hereunder.

- Enrolment begins on Nov 09, 2020
- Enrolment ends on Jan 25, 2021
- Start of course from Jan 18, 2021
- End of course on Feb 12, 2021
- Exam Date on Mar 21, 2021
- Exam registration - form open on Jan 07, 2021
- Last date for filling exam registration form and pay exam fees- **Exam fee - 1000 per exam:**
Feb 8, 2021

Important Note about Enrolment form: Guidelines


Please remind the students to follow these steps:

1. Say **YES** to the question - Are you a Local Chapter
2. Select the college name correctly from the **drop-down** list.
3. Else his/her name will not be available in Local Chapter SPOC login.
4. Faculty - Please choose Profession as '**Faculty**'

Note : If a candidate has given **NO** to share info, their details will not be available in your SPOC login.

NPTEL Jan 2021 Semester Link

- a. Jan 2021 Semester - Enrollments are now open for 500+ courses!
Click here for the Jan 2021 course list - [click here](#)
- b. Timelines and Guidelines for Jan 2021 Semester - [click here](#)


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Head
Mechanical Engineering Department

Title of the value added course:

Work System Design

Code: CBIT/19MEV046

Duration: 32 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

H18ME 06/ H20ME 06

WORK SYSTEM DESIGN

Outcomes: At the end of the course, the students are able to

1. Scientifically establish the time required for a qualified worker to carry out a work element at a defined rate of working. (BL-5)
2. Apply ergonomic aspects of work system design. (BL-3)
3. Carry out systematic examination of the methods of doing work with an aim of finding the means of effective and efficient use of resources. (BL-3)
4. Establishing standards of performance for the work being carried out. (BL-5)
5. Carry out in-depth analysis of all the elements, factors, resources and relationships affecting the efficiency and effectiveness of the work being studied. (BL-3)

UNIT- I

Work system design: Introduction, concept of productivity, measurement of productivity, productivity measures, productivity measurement models, factors influencing productivity, causes of low productivity, productivity improvement techniques, numerical problems on productivity, case study on productivity.

.UNIT -II

Work study: Basic concept, steps involved in work study, concept of work content, techniques of work study, human aspects of work study

Method study: Basic concept, steps involved in method study, recording techniques, operation process charts, examples.

Flow process charts: Examples, two-handed-process charts, multiple activity charts, flow diagrams.

UNIT-III

String diagrams, principles of motion economy, micro-motion study, therbligs, SIMO charts, memo-motion study, cycle graph and chrono-cycle graph, critical examination techniques, development and selection of new method, installation and maintenance of improved methods.

UNIT- IV

Work measurement: Basic concept, techniques of work measurement, steps involved in time study, steps and equipment of time study, performance rating.

Performance rating: Examples, allowances, computation of standard time-I, computation of standard time-II, case study.


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UNIT – V

Work sampling: Basics, procedure of work sampling study, numerical problems on work sampling, introduction to synthetic data and PMTS, introduction to MTM and MOST.

Ergonomics: Basic concept, industrial ergonomics, anthropometry, man-machine system-1&2.

Case studies: Office chair, tower crane cabin, car seat, computer system, assembly line.

Text Books:

1. M. Telsang, “Industrial Engineering and Production Management”, S. Chand and Company Ltd, 2015.
2. Ralph M. Barnes, Wiley “Motion and Time Study Design and Measurement of Work”, The University of California, 2005.
3. Groover M.P., “Work Systems: The Methods, Measurement & Management of Work”, Prentice Hall, 2000.

Suggested Reading:

1. Alexander D., The practice and Management of industrial ergonomics, Prentice Hall, 2006.
- Konz S., and Johnson S., Work Design and Industrial Ergonomics, Holcomb Hathaway Publishers

Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Work System Design	CBIT/19MEV046	2020-21	1	32 hrs	1	1


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Title of the value added course:

Mechanical Measurement Systems

Code: CBIT/19MEV058

Duration: 32 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

H18ME 18/ H20ME 18

MECHANICAL MEASUREMENT SYSTEMS

Outcomes: At the end of the course, the students are able to

1. Understand the various characteristics of instrument. (BL-2)
2. Analyze the generalized model of a measuring system. (BL-4)
3. Understand the frequency response of a measuring system. (BL-2)
4. Evaluate measuring methods and devices for displacement, pressure and temperature measurement. (BL-5)
5. Understand the various thermo physical properties of measurement (BL-2)

UNIT-I

Basic concepts of measurement, functional elements of instruments, classification of measuring instruments, methods of correction for interfering and modifying inputs.

UNIT-II

Static characteristics of measuring instruments, loading effect and impedance matching, statistical analysis, Chi-square test, least square method, uncertainty analysis, problem solving, generalized model of a measuring system, zero and first order system.

UNIT-III

First order system- ramp response, impulse response, frequency response, second order system- step response, ramp response, impulse and frequency response, higher order systems, compensation, transducers, flow measurement, temperature measurement.

UNIT-IV

Strain gauges, piezoelectric transducers pressure measurement, force and torque measurement, displacement and acceleration measurement.

UNIT-V

Sound measurement, thermophysical properties measurement, flow visualization, air pollution sampling and measurement, problem solving.

Text Books:

1. Venkateshan, S.P., "Mechanical measurements", John Wiley & Sons, 2015.
2. Fridman, A.E., "The quality of measurements: a metrological reference", Springer Science & Business Media, 2011.
3. Bewoor, A.K. and Kulkarni, V.A., "Metrology and measurement", McGraw-Hill Education, 2009.

Suggested Reading:

1. R.K. Rajput, "Mechanical Measurements and Instrumentation", S.K. Kataria & Sons, 2013.
2. Dr. D.S. Kumar, "Mechanical Measurements & Control", Metropolitan Book Co. (P) Ltd, 2015.


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Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Mechanical Measurement Systems	CBIT/19MEV058	2020-21	1	32 hrs	2	2


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Title of the value added course:


Robotics and Control: Theory and Practice

Code: CBIT/19MEV073

Duration: 32 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

H18ME 33/H20ME 33

ROBOTICS AND CONTROL: THEORY AND PRACTICE

Outcomes: At the end of the course, the students are able to

1. Understand the spatial transformations associated with rigid body motions. (BL-2)
2. Develop skill in performing kinematics and dynamic analysis of robot systems. (BL-3)
3. Analyze different robot manipulators. (BL-4)
4. Understand the concept of robot exoskeleton. (BL-2)
5. Examine the robot assisted percutaneous interventions. (BL-4)

UNIT-I

Introduction: Coordinate frames and homogeneous transformations-I, coordinate frames and homogeneous frames-II, differential transformations, transforming differential changes between coordinate frames.

UNIT-II

Robot kinematics: Manipulator model, direct kinematics, inverse kinematics, manipulator Jacobian.

Robot dynamics: Trajectory planning, dynamics of manipulator, manipulator dynamics multiple degree of freedom, stability of dynamical system.

UNIT-III

Manipulator control and neural networks: Biped robot basics and flat foot biped model, biped robot flat foot and toe foot model, artificial neural network, neural network based control for robot manipulator.

UNIT-IV

Robotic exoskeletons: Introduction, force control of an index finger exoskeleton, neural control of a hand exoskeleton, neural control of a hand exoskeleton based on human subjects intention, redundancy resolution of human fingers using robotic principles, manipulability analysis of human fingers during coordinated object rotation, kinematics of flexible link robots.

UNIT-V

Robot assisted percutaneous interventions : Experiments on robot assisted percutaneous interventions, sliding mode control, higher order sliding mode control, smart needles for percutaneous interventions-I, smart needles for percutaneous interventions-II.

Text Books:


1. Mittal & Nagrath, "Robotics and Control", Tata McGraw-Hill Education, 2003.
2. Schilling Robert J, "Fundamentals of Robotics: Analysis and Control", Prentice-Hall, 1990. (TJ211.S334)
3. Niku Saeed B, "An Introduction to Robotics Analysis, Systems, Applications", Prentice-Hall, 2001.

Suggested Reading:

1. Niku Saeed B, "An Introduction to Robotics Analysis, Systems, Applications", Prentice-Hall, 2001.
2. K S Fu, Ralph Gonzalez, C S G Lee, "Robotics: Control Sensing, Vision and Intelligence", Tata McGraw-Hill Education, 1987.


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Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Robotics and control: Theory and Practice	CBIT/19MEV073	2020-21	1	32 hrs	3	3


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Title of the value added course:


Innovation by Design

Code: CBIT/19MEV055

Duration: 32 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

H18ME 15/ H20ME 15

INNOVATION BY DESIGN

Outcomes: At the end of the course, the students are able to

1. Find solutions to present day problems and challenges through innovation. (BL-4)
2. Formulate a design enabled by innovation. (BL-6)
3. Gain knowledge on the journey of a design idea from the identification of a problem to a final solution. (BL-2)
4. Learn the importance of innovation process requiring empathy, meticulous effort, constant user interaction and effective collaboration. (BL-1)
5. Apply innovation to have positive impact on a large community of users. (BL-3)

UNIT-I

Introduction: The seven concerns, design thinking & collaboration, challenges to innovation, understanding users, arriving at design insights, prototyping for user feedback.

First C: The cause: Crossing the first pitfall, trial and error, user feedback for development, new users, new needs to meet.

UNIT-II

Second C: The context: The basic need, ingenious attempts, further insights, the working rig, concepts generation, experiencing the product.

Third C: The comprehension: Understanding constraints, positioning the product, exploring possibilities, understanding the technology.

UNIT-III

Fourth C: The check: The check and the cause, the product, the users and the context, the prototyping, user needs.

UNIT-IV

Fifth C: The conception: Synchronic studies, one product, many problems, concept clusters, from idea to product, prototyping, materials and technologies, collaborative efforts.

UNIT-V

Sixth C: The drafting: Recap, the manufacturing challenge, the user feedback, the iterative Process.

Seventh C: The connection: The seed for innovation, pinnacle for innovation, the Innovation timeline, the innovation, champions, the Innovation templates, the Serial Innovation.


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Suggested References:

1. 7C's Link: <http://www.idc.iitb.ac.in/~chakku/chakku7Cs.pdf>
2. Collaborative Model For Innovation Link: http://www.idc.iitb.ac.in/~chakku/collaborative_model_for_innovation.pdf
3. Pitfalls in the Innovation process Link: http://www.idc.iitb.ac.in/~chakku/Pitfalls_in_the_innovation_process.pdf
4. Innovation By Design – Collaboration is the key to cross the Pitsfalls in the Innovation Process Link: http://www.idc.iitb.ac.in/~chakku/Innovation_by_Design.pdf

Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Innovation by Design	CBIT/19MEV055	2020-21	1	32 hrs	4	4


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Title of the value added course:

Database Management System

Code: CBIT/19MEV074

Duration: 32 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

Database Management Systems

Unit – I

Introduction to Databases and Transactions: What is database system, purpose of database system, view of data, relational databases, database architecture, transaction management,

Unit- II

Data Models: The importance of data models, Basic building blocks, Business rules, The evolution of data models, Degrees of data abstraction.

Unit-III

Database Design ,ER-Diagram and Unified Modeling Language Database design and ER Model:overview, ER-Model, Constraints, ER-Diagrams, ERD Issues, weak entity sets, Codd's rules, Relational Schemas, Introduction to UML Relational database model: Logical view of data, keys, integrity rules. Relational Database design: features of good relational database design, atomic domain and Normalization (1NF, 2NF, 3NF, BCNF).

Unit- IV

Relational Algebra and Calculus Relational algebra: introduction, Selection and projection, set operations, renaming, Joins, Division, syntax, semantics. Operators, grouping and ungrouping, relational comparison. Calculus: Tuple relational calculus, Domain relational Calculus, calculus vs algebra, computational capabilities.

Unit- V

Constraints, Views and SQL What is constraints, types of constrains, Integrity constraints, Views: Introduction to views, data independence, security, updates on views, comparison between tables and views SQL: data definition, aggregate function, Null Values, nested sub queries, Joined relations. Triggers.

Unit-VI

Transaction management and Concurrency control Transaction management: ACID properties, serializability and concurrency control, Lock based concurrency control (2PL, Deadlocks),Time stamping methods, optimistic methods, database recovery management.


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Books:

A Silberschatz, H Korth, S Sudarshan, "Database System and Concepts", fifth Edition McGraw-Hill ,
 Rob, Coronel, "Database Systems", Seventh Edition, Cengage Learning.

Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Data Base Management System	CBIT/19MEV074	2020-21	1	32 hrs	1	1


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Title of the value added course:

Deep Learning

Code: CBIT/19MEV075

Duration: 36 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

Course layout

Week 1: Introduction to Deep Learning, Bayesian Learning, Decision Surfaces

Week 2: Linear Classifiers, Linear Machines with Hinge Loss

Week 3: Optimization Techniques, Gradient Descent, Batch Optimization

Week 4: Introduction to Neural Network, Multilayer Perceptron, Back Propagation Learning

Week 5: Unsupervised Learning with Deep Network, Autoencoders

Week 6: Convolutional Neural Network, Building blocks of CNN, Transfer Learning

Week 7: Revisiting Gradient Descent, Momentum Optimizer, RMSProp, Adam

Week 8: Effective training in Deep Net- early stopping, Dropout, Batch Normalization, Instance Normalization, Group Normalization

Week 9: Recent Trends in Deep Learning Architectures, Residual Network, Skip Connection Network, Fully Connected CNN etc.

Week 10: Classical Supervised Tasks with Deep Learning, Image Denoising, Semantic Segmentation, Object Detection etc.

Week 11: LSTM Networks

Week 12: Generative Modeling with DL, Variational Autoencoder, Generative Adversarial Network
Revisiting Gradient Descent, Momentum Optimizer, RMSProp, Adam

Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Deep Learning	CBIT/19MEV075	2020-21	1	36 hrs	1	1


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Title of the value added course:

The Joy of Computing using Python

Code: CBIT/19MEV020

Duration: 32 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

The Joy of Computing using Python

- Motivation for Computing
- Welcome to Programming!!
- Variables and Expressions : Design your own calculator
- Loops and Conditionals : Hopscotch once again
- Lists, Tuples and Conditionals : Lets go on a trip
- Abstraction Everywhere : Apps in your phone
- Counting Candies : Crowd to the rescue
- Birthday Paradox : Find your twin
- Google Translate : Speak in any Language
- Currency Converter : Count your foreign trip expenses
- Monte Hall : 3 doors and a twist
- Sorting : Arrange the books
- Searching : Find in seconds
- Substitution Cipher : What's the secret !!
- Sentiment Analysis : Analyse your Facebook data
- 20 questions game : I can read your mind
- Permutations : Jumbled Words
- Spot the similarities :Dobble game
- Count the words : Hundreds, Thousands or Millions.
- Rock, Paper and Scissor : Cheating not allowed !!
- Lie detector : No lies, only TRUTH
- Calculation of the Area : Don't measure.
- Six degrees of separation : Meet your favourites
- Image Processing : Fun with images
- Tic tac toe : Let's play
- Snakes and Ladders : Down the memory lane.
- Recursion : Tower of Hanoi
- Page Rank : How Google Works !!


Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
The Joy of Computing using Python	CBIT/19MEV020	2020-21	1	32 hrs	1	1


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Title of the value added course:
Numerical Methods for Engineers
Code: CBIT/19MEV072

Duration: 32 hrs

Target participants: All UG students
Academic year: 2020 - 21


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Syllabus

H18ME 32/ H20ME 32

NUMERICAL METHODS FOR ENGINEERS

Outcomes: At the end of the course, the students are able to

1. Understand the of calculation and interpretation of errors in numerical method. (BL-2)
2. Analyze numerical solution of a system of linear equations . (BL-4)
3. Examine the roots of polynomial equations using numerical analysis . (BL-4)
4. Apply numerical differentiation, integration and regression methods. (BL-3)
5. Solve numerically on the ordinary differential equations using different methods . (BL-3)

UNIT-I

Introduction : Motivation and applications computation and error analysis accuracy and precision, truncation and round-off errors, binary number system, error propagation.

UNIT-II

Linear systems and equations: Matrix representation, Cramer's rule, Gauss Elimination, Matrix Inversion, LU decomposition, iterative methods, relaxation methods, Eigen values.

UNIT-III

Algebraic equations: Bracketing methods, bisection, Reguli-Falsi, open methods and optimization open methods, secant, fixed point iteration, Newton-Raphson, multivariate Newton's method.

UNIT-IV

Numerical differentiation ,integration, regression and curve fitting : Numerical differentiation, higher order formulae , integration and integral equations trapezoidal rules, Simpson's rules, quadrature regression linear regression, least squares, total least squares, interpolation and curve fitting interpolation, Newton's difference formulae, cubic splines.

UNIT-V

ODEs initial value problems and boundary value problems: Euler's methods, Runge-Kutta methods, predictor-corrector methods, extension to multi-variable systems, adaptive step size, stiff ODEs, boundary value problems shooting method, finite differences, over/under relaxation(SOR).

Text Books:


1. Gupta S.K, "Numerical Methods for Engineers", New Age International, 1995.
2. Chapra S.C. and Canale R.P, "Numerical Methods for Engineers", 5/e., McGraw Hill, 2006.
3. Froberg C. E., "Introduction to Numerical Analysis", 2/e, Addison Wesley, 1970.

Suggested Reading:

1. Jain M.K., Iyengar S.R.K., "Numerical methods for Scientific and Engineering Computation", 3/e, New Age International (P) Ltd, 1996.
2. Phillips G.M., Taylor P.J., "Theory and Applications of Numerical Analysis", 2/e, Academic Press, 1996.


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Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Numerical methods for engineers	CBIT/19MEV072	2020-21	1	32 hrs	2	2


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Title of the value added course:

Industrial Safety Engineering

Code: CBIT/19MEV043

Duration: 32 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

H18ME 03/ H20ME 03

INDUSTRIAL SAFETY ENGINEERING

Outcomes: At the end of the course, the students are able to

1. Identify the causes for industrial accidents and suggest preventive measures for safety. (BL-2)
2. Use the concepts of engineering systems safety, dimensions of engineering systems safety.(BL-3)
3. Apply the principles of safety design and carry out analysis. (BL-3)
4. Design for engineering systems safety and control for safety. (BL-3)
5. Integrate safety with other operational goals such as quality and reliability. (BL-5)

UNIT - I

Introduction: key concepts, terminologies, and safety quantification, safety by design, hazard identification techniques (e.g., HAZOP, FMEA, etc.) .

UNIT - II

Fault tree and event tree analysis (qualitative & quantitative)andBow-tie and quantitative risk assessment (QRA) .

UNIT - III

Safety function deployment, safety vs reliability, quantification of basic events (repair to failure, repair- failure-repair, and combined processes).

UNIT - IV

Systems safety quantification (e.g., truth tables, structure functions, minimal cut sets), human error analysis and safety.

UNIT – V

Accident investigation and analysis, application of virtual reality, OSHAS 18001 and OSHMS.

Text Books:

1. Komamoto and Henley, “Probabilistic Risk Assessment for Engineering and Scientists”, IEEE Press, 1995.
2. Heinrich et al., “Industrial Accident Prevention”, McGraw Hill, 1980.
3. Petersen D, “Techniques for safety management - A systems approach”, ASSE 1998.

Suggested Reading:

1. H. P. Garg, “Maintenance Engineering”, S. Chand and Company, Year 2010.
2. Tyler G. Hicks and T. W. Edwards, “Pump Application Engineering”, McGraw-Hill, 1971.


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Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Industrial safety engineering	CBIT/19MEV043	2020-21	1	32 hrs	1	1


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Title of the value added course

Automation in Manufacturing

Code: CBIT/19MEV041

Duration: 32 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

H18ME 01/ H20ME 01

AUTOMATION IN MANUFACTURING

Outcomes: At the end of the course, the students are able to

1. Explain the design and development of automated systems in the manufacturing. (BL-2)
2. Describe working of various blocks of automated system. (BL-2)
3. Illustrate the principle of operation and construction details of sensors/transducers, actuators, drives and mechanisms, hydraulic and pneumatic systems for automation. (BL-3)
4. Summarize the microprocessor technology, programming and CNC technology. (BL-2)
5. Use automation principles for manufacturing industrial applications. (BL-3)

UNIT- I

Introduction: Importance of automation in the manufacturing industry. Use of mechatronics, systems required.

Design of an automated system: Building blocks of an automated system, working principle and examples.

UNIT- II

Fabrication: Fabrication or selection of various components of an automated system, specifications of various elements, use of design data books and catalogues.

Sensors: Study of various sensors required in a typical automated system for manufacturing, construction and principle of operation of sensors.

UNIT- III

Microprocessor technology: Signal conditioning and data acquisition, use of microprocessor or micro controllers, configurations, working.

Drives: Electrical drives, types, selection criteria, construction and operating principle.

UNIT - IV

Mechanisms: Ball screws, linear motion bearings, cams, systems controlled by camshafts, electronic cams, indexing mechanisms, tool magazines, and transfer systems.

Hydraulic systems: Hydraulic power pack, pumps, valves, designing of hydraulic circuits.

UNIT -V

Pneumatic systems: Configurations, compressors, valves, distribution and conditioning.

CNC technology: Basic elements, interpolators and programming.

Text Books:

1. Boltan, W., "Mechatronics: electronic control systems in mechanical and electrical engineering", Longman, Singapore, 1999.
2. Groover, M.P., "Automation, Production Systems, and Computer-Integrated Manufacturing", Prentice Hall, 2001.
3. Gaonkar, R.S., "Microprocessor architecture, programming, and applications with the 8085", Penram International Publishing (India), Delhi, 2000.


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Suggested Reading:

1. Regtien, P. P. L., "Sensors for mechatronics", Elsevier, USA, 2012.
2. Parr, A. A., "Hydraulics and pneumatics", Elsevier, 1999.

Handbooks:

1. Smid, P., "CNC Programming Handbook", Industrial Press, New York, USA, 2008.
2. Rothbart, H. A., "CAM Design Handbook", McGraw-Hill, 2004.
3. Norton, R. L., "Cam Design and Manufacturing Handbook", Industrial press Inc, 2002.

Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Automation in manufacturing	CBIT/19MEV041	2020-21	1	32 hrs	2	2


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Title of the value added course

Design Thinking-A Primer

Code: CBIT/19MEV054

Duration: 32 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

H18ME 14/ H20ME 14

DESIGN THINKING - A PRIMER

Outcomes: At the end of the course, the students are able to

1. Understand the basic concept of design thinking. (BL-2)
2. Recall the step involved in design thinking. (BL-1)
3. Apply the principles of design thinking by observing, interviewing or just experiencing a situation. (BL-3)
4. Improve the situation of the humans by solving problems facing them. (BL-5)
5. Analyze problems using brain storming, 5 why's. (BL-3)

UNIT-I

Design thinking: Introduction, history, discussion and case study.

UNIT-II

Empathize phase: Customer journey mapping.

UNIT-III

Analyze phase: 5-Whys, 5 whys-IIT stadium levels and solve-workshop I & II.

UNIT-IV

Solve phase: Ideation, free brainstorming.

UNIT-V

Make/Test phase: Customer reactions to prototype, finale and appeal for proposals.


Text Books:

1. Prof. Karl Ulrich, "Design: Creation of Artifacts in Society", University of Pennsylvania, 2011.
2. Tim Brown, "Change by Design" Harper Business Publication, 2013.
3. Idris Mootee "Design Thinking for Strategic Innovation", Adams Media publications, 2014.

Suggested Reading:

1. Bryan Lawson, "How Designer's Think: The design process demystified", Architectural Press, 2005.
2. Brown, Dan M, "Designing Together", New Riders, 2013.

Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Design thinking-A primer	CBIT/19MEV054	2020-21	1	32 hrs	2	2


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Title of the value added course:

Aircraft Propulsion

Code: CBIT/19MEV063

Duration: 32 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

H18ME 23/ H20ME 23

AIRCRAFT PROPULSION

Outcomes: At the end of the course, the students are able to

1. Study of gas turbines and aircraft propulsion. (BL-2)
2. Compare the ideal and real cycle analysis. (BL-2)
3. Evaluate the performance of aircraft engine and study of engine components. (BL-5)
4. Study of different compressors and turbines. (BL-2)
5. Identify turbine cooling methods and study of blade and cascade theory. (BL-3)

UNIT-I

Introduction to gas turbines and aircraft propulsion: Turbomachines-Introduction, classification, components of gas turbine power plant, various aircraft engines, engine performance parameters.

UNIT-II

Ideal and real cycle analysis: Air standard ideal Brayton cycle, non-ideal Brayton cycle, Brayton cycle with reheater, Brayton cycle with intercooler, real Brayton cycle with stagnation conditions, polytropic efficiency of compressor and turbine, aircraft engine intake, intake efficiency, propelling nozzle, nozzle efficiency.

UNIT-III

Engine performance and engine components: Turbojet engine, turbofan engine, ramjet engine, thrust augmentation and engine parameters for aircrafts.

UNIT-IV

Centrifugal compressor: Velocity diagram, work done, thermodynamic analysis, stage efficiency and degree of reaction.

Axial flow compressor: Velocity diagram, work done, degree of reaction, free vortex condition.

Axial turbine: Velocity diagram, work done and degree of reaction.

Radial turbine: Velocity diagram, H-S diagram, stage efficiency, degree of reaction.

UNIT-V

Blade design, cascade theory and turbine cooling methods: Cascade theory and blade design, cascade variables and turbine cascade, velocity diagrams of turbine cascade, compressor cascade, turbine cooling methods.


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Text Books:

1. G. F. C. Rogers and Y. R. Mayhew, "Engineering Thermodynamics Work and Heat Transfer", 4/e., Pearson, 2001.
2. H. I. H Saravanamuttoo, G. F. C. Rogers and H. Cohen, "Gas Turbine Theory", 4/e., Pearson, 2003.

Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Aircraft propulsion	CBIT/19MEV063	2020-21	1	32 hrs	1	1


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Title of the value added course:


Data Science Math Skills

Code: CBIT/19MEV012

Duration: 30 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

Data Science Math Skills

Welcome to Data Science Math Skills

This short module includes an overview of the course's structure, working process, and information about course certificates, quizzes, video lectures, and other important course details. Make sure to read it right away and refer back to it whenever needed

Building Blocks for Problem Solving

This module contains three lessons that are build to basic math vocabulary. The first lesson, "Sets and What They're Good For," walks you through the basic notions of set theory, including unions, intersections, and cardinality. It also gives a real-world application to medical testing. The second lesson, "The Infinite World of Real Numbers," explains notation we use to discuss intervals on the real number line. The module concludes with the third lesson, "That Jagged S Symbol," where you will learn how to compactly express a long series of additions and use this skill to define statistical quantities like mean and variance.

Functions and Graphs


This module builds vocabulary for graphing functions in the plane. In the first lesson, "Descartes Was Really Smart," you will get to know the Cartesian Plane, measure distance in it, and find the equations of lines. The second lesson introduces the idea of a function as an input-output machine, shows you how to graph functions in the Cartesian Plane, and goes over important vocabulary.

Measuring Rates of Change

This module begins a very gentle introduction to the calculus concept of the derivative. The first lesson, "This is About the Derivative Stuff," will give basic definitions, work a few examples, and show you how to apply these concepts to the real-world problem of optimization. We then turn to exponents and logarithms, and explain the rules and notation for these math tools. Finally we learn about the rate of change of continuous growth, and the special constant known as "e" that captures this concept in a single number—near 2.718.


Introduction to Probability Theory

This module introduces the vocabulary and notation of probability theory – mathematics for the study of outcomes that are uncertain but have predictable rates of occurrence.



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Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Data Science Math Skills	CBIT/19MEV012	2020-21	1	30 hrs	1	1


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Title of the value added course:

Enhancing Soft Skills & Personality

Code: CBIT/19MEV013

Duration: 32 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

Enhancing Soft Skills & Personality

Week 1 :

- Highlights of Developing Soft Skills and Personality Course-1-24
- Highlights of Developing Soft Skills and Personality Course-25-48
- Definitions and Types of Mindset
- Learning Mindsets
- Secrets of Developing Growth Mindsets

Week 2 :

- Importance of Time and Understanding Perceptions of Time
- Using Time Efficiently
- Understanding Procrastination
- Overcoming Procrastination
- Don't Say "Yes" to Make Others Happy!

Week 3 :

- Types of People
- How to Say "No"
- Controlling Anger
- Gaining Power from Positive Thinking-1
- Gaining Power from Positive Thinking-2

Week 4 :

- What Makes Others Dislike You?
- What Makes Others Like You?-1
- What Makes Others Like You?-2
- Being Attractive-1
- Being Attractive-2

Week 5 :

- Common Errors-1
- Common Errors-2
- Common Errors-3
- Common Errors-4
- Common Errors-5


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Week 6 :

- Humour in Communication
- Humour in the Workplace
- Function of Humour in the Workplace
- Money and Personality
- Managing Money

Week 7 :

- Health and Personality
- Managing Health-1: Importance of Exercise
- Managing Health-2: Diet and Sleep
- Love and Personality
- Managing Love

Week 8 :

- Ethics and Etiquette
- Business Etiquette
- Managing Mind and Memory
- Improving Memory
- Care for Environment
- Highlights of the Course

Books and references

- Dorch, Patricia. What Are Soft Skills? New York:Execu Dress Publisher, 2013.
- Kamin, Maxine. Soft Skills Revolution: A Guide for Connecting with Compassion for Trainers, Teams, and Leaders. Washington, DC: Pfeiffer & Company, 2013.
- Klaus, Peggy, Jane Rohman & Molly Hamaker. The Hard Truth about Soft Skills. London: HarperCollins E-books, 2007.
- Petes S. J., Francis. Soft Skills and Professional Communication. New Delhi: Tata McGraw-Hill Education, 2011.
- Stein, Steven J. & Howard E. Book. The EQ Edge: Emotional Intelligence and Your Success. Canada: Wiley & Sons, 2006.


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Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Enhancing Soft Skills & Personality	CBIT/19MEV013	2020-21	1	32 hrs	1	1


PROFESSOR & HEAD
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Title of the value added course:

**Programming for Everybody
(Getting Started with Python)**

Code: CBIT/19MEV002

Duration: 32 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

These are the course-wide materials as well as the first part of Chapter One where we explore what it means to write programs. We finish Chapter One and have the quiz and first assignment in the third week of the class. In this module you will set things up so you can write Python programs. Not all activities in this module are required for this class so please read the "Using Python in this Class" material for details.

In the first chapter "big picture" of programming will be covered. This chapter is quite broad and you would benefit from reading the chapter in the book in addition to watching the lectures to help it all sink in. You might want to come back and re-watch these lectures after you have finished a few more chapters.

In this chapter we cover how a program uses the computer's memory to store, retrieve and calculate information.

Modules:

Programming for Everybody

The syllabus is a combination of different types of knowledge, (concepts, processes, contexts) skills and values, and includes the following:

Structure and components of programming languages

Programming Fundamentals: Variables, Procedures and Subroutines

Decision Making: If then statements

Loops: For Loop and While Loops

Data Structures: Lists and Strings

Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Programming for every body	CBIT/19MEV002	2020-21	1	32 hrs	1	1


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Title of the value added course:

Python Data Structures

Code: CBIT/19MEV003

Duration: 32 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

Python for data structures

Week 01 : Informal introduction to programming, algorithms and data structures via gcd, Downloading and installing Python, gcd in Python: variables, operations, control flow - assignments, condition-als, loops, functions.

Week 02 : Python: types, expressions, strings, lists, tuples | Python memory model: names, mutable and immutable values | List operations: slices etc| Binary search | Inductive function definitions: numerical and structural induction | Elementary inductive sorting: selection and insertion sort | In-place sorting.

Week 03 : Basic algorithmic analysis: input size, asymptotic, complexity, $O()$ notation | Arrays vs lists | Merge sort | Quicksort | Stable sorting.

Week 04 : Dictionaries | More on Python functions: optional arguments, default values | Passing functions as arguments | Higher order functions on lists: map, lter, list comprehension.

Week 05 : Exception handling | Basic input/output | Handling files | String processing.

Week 06 : Backtracking: N Queens, recording all solutions | Scope in Python: local, global, nonlocal names | Nested functions | Data structures: stack, queue | Heaps.

Week 07 : Abstract datatypes | Classes and objects in Python | "Linked" lists: find, insert, delete | Binary search trees: find, insert, delete | Height-balanced binary search trees.

Week 08 : Efficient evaluation of recursive definitions: memoization | Dynamic programming: examples | Other programming languages: C and manual memory management | Other programming paradigms: functional programming.

Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Python for data structures	CBIT/19MEV003	2020-21	1	32 hrs	1	1


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Title of the value added course:

Data Science - Internshala

Code: CBIT/19MEV014

Duration: 30 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

Data Science -Internshala

Introduction to Data Science: Overview of Data Science, Terminologies in Data Science, Applications of Data Science,

Python for Data Science: Introduction to Python, Understanding Operators, Variables and Data Types, Conditional Statements, Looping Constructs, Functions, data Structure, Lists, Dictionaries Understanding Standard Libraries in Python, Reading a CSV File in Python, Data Frames and basic operations with Data Frames, Indexing Data Frame

Understanding the Statistics for Data Science : Introduction to Statistics, Measures of Central Tendency I, Measures of Central Tendency II, Understanding the spread of data, Data Distribution, Introduction to Probability, Probabilities of Discrete and Continuous Variables, Central Limit Theorem and Normal Distribution I, Central Limit Theorem and Normal Distribution II Introduction to Inferential Statistics Understanding the Confidence Interval and margin of error Hypothesis Testing T tests IT tests II Chi Squared Tests Understanding the concept of Correlation

Predictive Modeling and Basics of Machine Learning: Introduction to Predictive Modeling Understanding the types of Predictive Models Stages of Predictive Models Hypothesis Generation Data Extraction Data Exploration Reading the data into Python Variable Identification Univariate Analysis for Continuous Variables Univariate Analysis for Categorical Variables Bivariate Analysis Treating Missing Values How to treat Outliers Transforming the Variables Basics of Model Building Linear Regression Logistic Regression Decision Trees K-means Data Set for Final Test

Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Data Science - Internshala	CBIT/19MEV014	2020-21	1	30 hrs	1	1


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Title of the value added course:


Solidworks - Internshala

Code: CBIT/19MEV015

Duration: 30 hrs

Target participants: All UG students

Academic year: 2020 -21


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Syllabus

Solidworks - Internshala

SolidWorks- Introduction, Interface and Sketching:3 Demo videos inside Training Overview
VideoIntroduction to SolidWorksInterface and NavigationSolidWorks Sketching

Applying Features and Material: Applying Basic FeaturesMaterial and Mass PropertiesApplying
Complex Features

SolidWorks Assembly:Generating Assemblies from Parts

SolidWorks Drawing and Portfolio Building:SolidWorks DrawingBuilding Your Design Portfolio

Final Project- Air Piston-Cylinder Assembly

Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Solidworks-Internshala	CBIT/19MEV015	2020-21	1	30 hrs	1	1


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Title of the value added course:

Data Structures & Algorithms - Internshala

Code: CBIT/19MEV016

Duration: 30 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

Data Structures & Algorithms-Internshala

Introduction to Data Structures :3 Demo videos inside Understanding Data Structures Brief overview of Linear Data Structures Brief overview of Non-Linear Data Structures Basics of Memory

Introduction to Algorithms: Basics of Algorithms Learning Constructs Algorithms Using Arrays Complexity Analysis

Single & Double Dimensional Arrays: Introduction To structure of C Programs 1-D Arrays 2-D Arrays Advance Manipulation of 2-D Arrays

Searching & Sorting: Searching Sorting

Stacks & Queues: Fundamentals of Stack, Algorithms of Stacks Fundamentals of Queues Algorithms of Queues

Revision of relevant topics in C: Revising Pointers Revising Functions Revising Structures in C

Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Data Structures & Algorithms-Internshala	CBIT/19MEV016	2020-21	1	30 hrs	1	1


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Title of the value added course:

Introduction to Artificial Intelligence (AI)

Code: CBIT/19MEV017

Duration: 36 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

Introduction to Artificial Intelligence (AI)

Course layout

- Week 1** :Introduction: Philosophy of AI, Definitions
Week 2 :Modeling a Problem as Search Problem, Uninformed Search
Week 3 :Heuristic Search, Domain Relaxations
Week 4 :Local Search, Genetic Algorithms
Week 5 :Adversarial Search
Week 6 :Constraint Satisfaction
Week 7 :Propositional Logic & Satisfiability
Week 8 :Uncertainty in AI, Bayesian Networks
Week 9 :Bayesian Networks Learning & Inference, Decision Theory
Week 10:Markov Decision Processes
Week 11:Reinforcement Learning
Week 12:Introduction to Deep Learning & Deep RL

Books and references

Stuart Russell & Peter Norvig, Artificial Intelligence: A Modern Approach, Prentice-Hall, Third Edition (2009) (required).
 Ian GoodFellow, Yoshua Bengio& Aaron Courville, Deep Learning, MIT Press (2016).

Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Introduction to Artificial Intelligence (AI)	CBIT/19MEV017	2020-21	1	36 hrs	1	1


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Title of the value added course:

Introduction to CSS3

Code: CBIT/19MEV018

Duration: 32 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

Introduction to CSS3

Week One: Getting Started with Simple Styling

Welcome to Introduction to CSS3! In this course you will learn how to style your pages by taking advantage of the power of CSS3. We will focus on both proper syntax (how to write your styling rules) and the importance of accessibility design (making sure that your style enhances your site, not make it harder to navigate). It is so important that you jump in ready to make mistakes and typos in this course. The only way you will really understand the material is to practice typing it in on your own as often as possible.

Week Two: Advanced Styling

Colors and fonts are just the start to styling your page. The nice thing about starting with these properties is that they are usually very straightforward to implement. You pick a color and boom - instant, expected results. This week we move on to new properties that tend to require a little bit of tweaking to get the desired results. In particular we will talk about the Box Model, background images, opacity, float, columns, visibility, and designing for different browsers.

Week Three: Psuedo-classes, Pseudo-elements, Transitions, and Positioning

Have you ever noticed on a web page that some links are blue and others are purple, depending upon if you have clicked on the links? How is it possible to style some anchor tags and not others? This week you will learn how to style pseudo-classes (e.g. a link that has been visiting, an element that has the mouse hovering over it) and pseudo-elements (e.g. the first-letter of a heading, the first line of a paragraph). These elements are not difficult to style, but do require careful coding. It is also the first step to adding simple animation to your site. We end this week with the subject of positioning -- how to get elements to stick to a certain part of your page. Think about annoying pop-up ads. How do the programmers get them to stay RIGHT IN THE MIDDLE OF THE SCREEN despite the fact that you keep trying to scroll them away.


Week Four: Putting It All Together

This week I am going to do some code review. I will show you how I used pseudo-classes and pseudo-elements to style a table. Then I give you a demonstration of three different navigation bars that utilize different styling options. We will want to step back and talk about how these different options may affect the accessibility of our site. The final step to completing this course is the completion of the peer-graded project. You will have the chance to demonstrate the ability to follow styling guidelines while still putting your own personal touch on the project. Just remember, you need to validate your work for proper syntax and accessibility.



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Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Introduction to CSS3	CBIT/19MEV018	2020-21	1	32 hrs	1	1


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Title of the value added course:

Introduction to HTML5

Code: CBIT/19MEV020

Duration: 32 hrs

Target participants: All UG students

Academic year: 2020 - 21


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Syllabus

Introduction to HTML5

Week One

This week we will uncover the "mystery" behind the Internet. What happens when you type a URL into your browser so that a webpage magically appears? What is HTML5 and what happened to HTML 1 - 4? We will also cover some practical concepts that you need to master before you begin coding your own pages.

Week Two

This week you will need to take a deep breath and jump into coding. I will cover a large number of HTML tags, but it is important that you do more than just listen to these video and read the text book material. You need to practice (and fail!) in order to learn. Believe it or not, once you master the basic idea of using tags and attributes you will know everything you need to use any HTML5 tag. The page may not look the way you want it to look yet, but you will be able to use text, links, images, tables, and even music and videos! If you want to refer to a textbook this week for reinforcement of concepts, we will be using the Shay Howe online textbook as a reference. I will include links after the lectures, but some students prefer to read before the videos. (My preferred approach is to read/watch/read again.)

Week Three

Okay, you created a file...what now? This week we will begin by covering the important but often overlooked concepts of validation and accessibility. Did you follow the DOM structure when you created your page? Did you use semantic tags to make sure that page viewers can access all of the information, even if they have physical or cognitive disabilities? This is knowledge you can use if you would like to pursue a career as a web accessibility specialist. Finally I will briefly cover the steps needed to post your site to the web. There are many free and paid services that you can use to get your work off your computer and on to the Internet.

Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Introduction to HTML5	CBIT/19MEV020	2020-21	1	32 hrs	1	1


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Title of the value added course:

**Mechanics of Materials II: Thin Walled
Pressure Vessels and Torsion**

Code: CBIT/19MEV006

Duration: 36 hrs

Target participants: All UG students

Academic year: 2020 - 21



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Syllabus

Mechanics of Materials II: Thin Walled Pressure Vessels and Torsion

- Module 1: General Analysis Approach
- Module 2: Definition and examples of thin-walled pressure vessels
- Module 3: Longitudinal stress
- Module 4: Hoop Stress
- Module 5: Mohr's circle for cylindrical thin-walled pressure vessels
- Module 6: Stresses in spherical thin-walled pressure vessels
- Module 7: Solve a thin-walled pressure vessel problem
- Module 8: Solve a thin-walled pressure vessel problem (continued)
- Module 9: Definition and examples of real world torsional engineering applications
- Module 10: Torsional shearing strain
- Module 11: Torsional shearing stress
- Module 12: Elastic torsion formula
- Module 13: Polar moment of inertia
- Module 14: Angle of twist
- Module 15: Elastic torsion of straight cylindrical shafts – maximum shear stress
- Module 16: Elastic torsion of straight cylindrical shafts – angle of twist
- Module 17: Elastic torsion of non-prismatic cylindrical shafts – maximum shear stress
- Module 18: Elastic torsion of non-prismatic cylindrical shafts – angle of twist
- Module 19: Stresses on inclined planes for pure shear due to torsion
- Module 20: Inelastic torsion of straight cylindrical shafts
- Module 21: Solve a problem for inelastic torsion of straight cylindrical shafts1
- Module 22: Solve a problem for inelastic torsion of straight cylindrical shafts (Continued)
- Module 23: Statically indeterminate torsion problems
- Module 24: Course conclusion

Name of the value added course	Course code	Year of offering	No of time offered during the same year	Duration	No of students enrolled	Number of students completing course in the year
Mechanics of Materials II: Thin Walled Pressure Vessels and Torsion	CBIT/19M EV006	2020-21	1	36 hrs	1	1


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