



K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU - 560109

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

SESSION: 2022-2023 (EVEN SEMESTER)

LESSON PLAN

NAME OF THE STAFF : SANTOSH KUMAR K J
COURSE CODE/TITLE : 18ME61/ FINITE ELEMENT METHOD
SEMESTER/YEAR : VI / III

Sl. No.	Topic to be covered	Mode of Delivery	Teaching Aid	No. of Periods	Cumulative No. of Periods	Proposed Date	Execution Date
MODULE 1							
1	Introduction to Finite Element Method: General description of the finite element method. Engineering applications of finite element method	L+D	BB	1	1	20/3/2023	20/3/23
2	Boundary conditions: homogeneous and nonhomogeneous for structural, heat transfer and fluid flow problems	L+D	BB	1	2	21/3/2023	21/3/23
3	Potential energy method	L+D	BB	1	3	23/3/2023	23/3/23
4	Problems on Potential energy method	L+D	BB	1	4	24/3/2023	24/3/23
5	Problems on Potential energy method	L+D	BB	1	5	25/3/2023	25/3/23
6	Rayleigh Ritz method, Galerkin's method and Displacement method of finite element formulation	L+D	BB	1	6	27/3/2023	29/3/23
7	Problems	L+D	PS	1	7	28/3/2023	29/3/23
8	Problems	L+D	PS	1	8	29/3/2023	29/3/23
9	Convergence criteria, Discretization process, Types of elements: 1D, 2D and 3D, Node numbering, Location of nodes	L+D	PS	1	9	30/3/2023	31/3/23
10	Strain displacement relations, Stress strain relations, Plain stress and Plain strain conditions, temperature effects	L+D	BB	1	10	31/3/2023	31/4/23

11	Tutorial	L+D	BB	1	10	1/4/2023	3/4/23
MODULE 2							
12	One-Dimensional Elements-Analysis of Bars Trusses: Linear interpolation polynomials in terms of local coordinate's for 1D, 2D elements	L+D	BB	1	11	4/4/2023	5/4/23
13	Higher order interpolation functions for 1D quadratic and cubic elements in natural coordinates	L+D	BB	1	12	5/4/2023	6/4/23
14	Constant strain triangle, Four-Nodded Tetrahedral Element (TET 4), Eight-Nodded Hexahedral Element (HEXA 8)	L+D	BB	1	13	6/4/2023	10/4/23
15	2D isoperimetric element, Lagrange interpolation functions, Numerical integration: Gaussian quadrature one point, two point formulae, 2D integrals,	L+D	BB	1	14	10/4/2023	11/4/23
16	Solution for displacement, stress and strain in 1D straight bars, stepped bars and tapered bars using elimination approach and penalty approach	L+D	BB	1	15	11/4/2023	11/4/23
17	Solution for displacement, stress and strain in 1D straight bars, stepped bars and tapered bars using elimination approach and penalty approach	L+D	BB	1	16	12/4/2023	12/4/23
18	Solution for displacement, stress and strain in 1D straight bars, stepped bars and tapered bars using elimination approach and penalty approach	L+D	BB	1	17	13/4/2023	13/4/23
19	Tutorial	L+D	BB	1	17	15/4/2023	17/4/23
20	Analysis of trusses	L+D	PS	1	18	20/4/2023	18/4/23
21	Analysis of trusses	L+D	PS	1	19	21/4/2023	18/4/23
22	Analysis of trusses	L+D	PS	1	20	24/4/2023	18/4/23
MODULE 3							
23	Beams and Shafts: Boundary conditions, Load vector,	L+D	BB	1	21	25/4/2023	18/5/23
24	Hermite shape functions, Beam stiffness matrix based on Euler-Bernoulli beam theory	L+D	BB	1	22	26/4/2023	18/5/23
25	Examples on cantilever beams, propped cantilever beams,	L+D	BB	1	23	27/4/2023	19/5/23
26	Numerical problems on simply supported, fixed straight and stepped beams using direct stiffness method with concentrated and uniformly distributed load.	L+D	PS	1	24	28/4/2023	19/5/23
27	Tutorial	L+D	PS	1	24	29/4/2023	19/5/23
28	Numerical problems on simply supported, fixed straight	L+D	BB	1	25	2/5/2023	18/5/23

	and stepped beams using direct stiffness method with concentrated and uniformly distributed load.						1
29	Torsion of Shafts: Finite element formulation of shafts	L+D	BB	1	26	3/5/2023	18/5/23
30	Finite element formulation of shafts	L+D	PS	1	27	4/5/2023	23/5/23
31	Determination of stress and twists in circular shafts.	L+D	PS	1	28	5/5/2023	23/5/23
32	Determination of stress and twists in circular shafts.	L+D	PS	1	29	8/5/2023	23/5/23
33	Determination of stress and twists in circular shafts.	L+D	PS	1	30	9/5/2023	23/5/23
MODULE 4							
34	Heat Transfer: Basic equations of heat transfer	L+D	BB	1	31	10/5/2023	24/5/23
35	Energy balance equation,	L+D	BB	1	32	11/5/2023	24/5/23
36	Rate equation: conduction, convection, radiation	L+D	BB	1	33	12/5/2023	24/5/23
37	Tutorial	L+D	BB	1	33	13/5/2023	25/5/23
38	1D finite element formulation using vibration method	L+D	BB	1	34	15/5/2023	25/5/23
39	Problems with temperature gradient and heat fluxes	L+D	BB	1	35	16/5/2023	2/6/23
40	Problems with temperature gradient and heat fluxes	L+D	BB	1	36	17/5/2023	5/6/23
41	Heat transfer in composite sections, straight fins	L+D	BB+PS	1	37	18/5/2023	7/6/23
42	Problems on Fins	L+D	BB	1	38	19/5/2023	13/6/23
43	Fluid Flow: Flow through a porous medium, Flow through pipes of uniform and stepped sections	L+D	BB+PS	1	39	22/5/2023	15/6/23
44	Flow through hydraulic networks	L+D	BB	1	40	23/5/2023	16/6/23
MODULE 5							
45	Axi-symmetric Solid Elements: Derivation of stiffness matrix of axisymmetric bodies with triangular elements,	L+D	BB	1	41	24/5/2023	15/6/23
46	Numerical solution of axisymmetric triangular element(s) subjected to surface forces, point loads, angular velocity, pressure vessels	L+D	BB+PS	1	42	25/5/2023	15/6/23
47	Numerical solution of axisymmetric triangular element(s) subjected to surface forces, point loads, angular velocity, pressure vessels	L+D	BB+PS	1	43	26/5/2023	21/6/23
48	Tutorial	L+D	BB+PS	1	43	27/5/2023	21/6/23
49	Dynamic Considerations: Formulation for point mass and distributed masses,	L+D	BB	1	44	1/6/2023	22/6/23
50	Consistent element mass matrix of one-dimensional bar element, truss element, axisymmetric triangular element, quadrilateral element, beam element	L+D	BB	1	45	2/6/2023	22/6/23
51	Lumped mass matrix of bar element, truss element	L+D	BB	1	46	5/6/2023	23/6/23
52	Evaluation of eigen values and eigen vectors, Applications	L+D	BB	1	47	6/6/2023	26/6/23

	to bars, stepped bars, and beams						
53	Evaluation of eigen values and eigen vectors, Applications to bars, stepped bars, and beams	L+D	PS	1	48	7/6/2023	26/6/23
54	Evaluation of eigen values and eigen vectors, Applications to bars, stepped bars, and beams	L+D	BB	1	49	8/6/2023	27/6/23
55	Evaluation of eigen values and eigen vectors, Applications to bars, stepped bars, and beams	L+D	BB	1	50	9/6/2023	28/6/23
56	Tutorial	L+D	BB	1	50	10/6/2023	29/6/23
REVISION							
57	Module 1	L+D	BB+PS	1	50	12/6/2023 13/6/2023	
58	Module 2	L+D	BB+PS	1	50	14/6/2023 15/6/2023	
59	Module 3	L+D	BB+PS	1	50	16/6/2023 19/6/2023	
60	Module 4	L+D	BB+PS	1	50	20/6/2023 21/6/2023	
61	Module 5	L+D	BB+PS	1	50	22/6/2023 23/6/2023	

Total No. of Lecture Hours = 50

Total No. of Tutorial Hours = 05

Total No. of Revision Hours = 10

Santhosh K R

Course In charge

Chandrasekhar

Head of the Department

I. T. Rana

Principal



K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU - 560109

DEPARTMENT OF MANAGEMENT STUDIES AND RESEARCH CENTRE

SESSION: 2022-2023

LESSON PLAN

NAME OF THE STAFF : SREEDHAR.N
COURSE CODE/TITLE : 22MBA21/Human Resource Management
SEMESTER/YEAR : II Sem/I Year
ACADEMIC YEAR : 2022-2023

Sl. No.	Topic to be covered	Mode of Delivery	Teaching Aid	No. of Periods	Cumulative No. of Periods	Proposed Date	Execution Date
MODULE 1							
1	Unit-1: Introduction to HRM	L+D	LCD	1	1	26-06-2023	26-6-23
2	Human Resource Management	L+D	LCD	1	2	27-06-2023	27-6-23
3	Personnel Management	L+D	LCD	1	3	28-06-2023	28-6-23
4	Importance of Human Resource Management	L+D	LCD	1	4	30-06-2023	30-6-23
5	Models of Human Resource Management	L+D	LCD	1	5	3-07-2023	3-7-23
6	Evolution of Human Resource Management, HRM in India,	L+D	LCD	1	6	5-07-2023	3-7-23
7	The Factors Influencing Human Resource Management,	L+D	LCD	1	7	6-07-2023	5-7-23
8	Human Resource Management and Line Managers, The HR Competencies	L+D	LCD	1	8	7-07-2023	6-7-23
9	Human Resource Management and Firm Performance	L+D	LCD	1	9	10-07-2023	10-7-23
MODULE 2							
10	HR Planning: Importance of HR Planning, Manpower Planning to HR Planning, Factors Affecting	L+D	LCD	1	10	11-07-2023	11-7-23
11	Recruitment Policies	L+D	LCD	1	11	12-07-2023	12-7-23
12	Factors Influencing Recruitment, Recruitment Process,	L+D	LCD	1	12	17-07-2023	17-7-23

13	Sources, Evaluation of Recruitment Process, Recruitment Strategy ;	L+D	LCD	1	13	18-07-2023	18-7-23
14	Selection, Future Trends in Recruitment; Selection Process;	L+D	LCD	1	14	19-07-2023	19-7-23
15	Selection Tests; Factors Influencing Selections,	L+D	LCD	1	15	24-07-2023	19-7-23
16	Challenges in Selection, Application Tracking System using MS-Excel	L+D	LCD	1	16	25-07-2023	25-7-23
17	Learning, Training, and Development: Training, Learning and Development, Learning Theories	L+D	LCD	1	17	31-07-2023	31-7-23
18	The Future of Training, Learning, and Development:	L+D	LCD	1	18	1-08-2023	1-08-23
19	Crystal Gazing into the Future, World of Learning. Process of training and Techniques of Training	L+D	LCD	1	19	1-08-2023	1-08-23
MODULE 3							
20	Performance Management and Appraisal: Objectives of Performance Management, Performance Management and Performance Appraisal, Common Problems	L+D	LCD	1	20	2-08-2023	2-8-23
21	Employee Benefits.	L+D	LCD	1	21	3-08-2023	3-8-23
22	International Labor Organisation, Industrial Relations,	L+D	LCD	1	22	4-08-2023	4-8-23
23	The Objectives of Industrial Relations, Approaches of Industrial Relations Systems	L+D	LCD	1	23	7-08-2023	4-8-23
24	The Actors in Industrial Relations, Indian Context, Industrial Relations and Human Resource Management.	L+D	LCD	1	24	9-08-2023	7-8-23
25	The Definition, Traditional Employment Relations, Actors in the Fray	L+D	LCD	1	25	10-08-2023	10-8-23
26	Role-taking, The New Frameworks for Employment Relations, The Future of Employee Relations.	L+D	LCD	1	26	14-08-2023	14-8-23
MODULE- 4							
27	Human Resource Management in Small and Medium Enterprises: Introduction to SME's	L+D	LCD	1	27	16-08-2023	16-8-23
28	Definition of SMEs, ,	L+D	LCD	1	28	17-08-2023	17-8-23

29	Human Resource Management and	L+D	LCD	1	29	18-08-2023	18-8-23
30	, Implications for Human Resource, Management Function,	L+D	LCD	1	30	24-08-2023	24-8-23
31	SMEs and Large Firms, Indian	L+D	LCD	1	31	28-08-2023	28-8-23
32	Performance in SMEs,	L+D	LCD	1	32	29-08-2023	29-8-23
33	The Difference in Adoption of Human Resource Management:	L+D	LCD	1	33	30-08-2023	30-8-23
34	Factors Influencing the Adoption of Human of	L+D	LCD	1	34	31-08-2023	30-8-23
35	Experience, Impact of Weak Adoption of Human Resource Management in SMEs	L+D	LCD	1	35	1-09-2023	31-8-23
36	Resource Management Practices in SMEs, Future	L+D	LCD	1	36	2-09-2023	1-9-23
37	Human Resource. Management in SMEs.	L+D	LCD	1	37	4-09-2023	2-9-23
38	Human Resource Management in the Service Sector Introduction, The Emergence of the	L+D	LCD	1	38	5-09-2023	4-9-23
39	Services Sector	L+D	LCD	1	39	6-09-2023	5-9-23
40	Differences Between Services Sector and the Manufacturing Sector	L+D	LCD	1	40	7-09-2023	7-9-23
MODULE 5							
41	Human Resource Management and Innovations: Introduction, Human Resource Management and Innovations, Factors.,	L+D	LCD	1	41	8-09-2023	8-9-23
42	Current Trends in Human Resource Management Innovations, Innovative Human Resource Management Practices in India	L+D	LCD	1	42	11-09-2023	11-9-23
MODULE-6							
43	Future trends in Human Resource Management: Future of Human Resource Management: The next generation HR professionalism, Critical HR Issues of Today and Tomorrow,	L+D	LCD	0	43	12-09-2023	12-9-23
44	Changing Mental Models:	L+D	LCD	0	44	13-09-2023	13-9-23
45	HR's Most Important Task, HR roles critical for business survival,	L+D	LCD	0	45	14-09-2023	14-9-23
46	HR profession in today's changeful workplace, HR and Technology	L+D	LCD	0	46	15-09-2023	15-9-23
47	Revision	L+D	LCD	0	47	18-09-2023	18-9-23


48	Revision	L+D	LCD	0	48	25-09-2023	24-9-23
49	Revision	L+D	LCD	0	49	26-09-2023	25-9-23
50	Tutorial	L+D	LCD	0	50	27-09-2023	26-9-23
51	Tutorial	L+D	LCD	0	51	29-09-2023	27-9-23
52	Tutorial	L+D	LCD	0	52	30-09-2023	29-9-23


Total No. of Lecture Hours = 46

Total No. of Tutorial Hours = 03


Total No. of Revision Hours = 03

	Mode of Assignment and instructions*	Date
Assignment 1	Meet any HR manager and ask 10 questions related to HR Functions. Then analysis the type of leadership style adopted.	15-07-2023
Assignment 2	Meet Recruitment Manager and ask- 10 questions one asks during Interview.	12-08-2023
Assignment 3	Visit any Service Organisation and observe HR functions; List them.	9-09-2023


Course In Charge


Professor HOD-MBA,
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Principal
Dr. K. RAMA NARASIMHA
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Bengaluru - 560 109



K. S. SCHOOL OF ENGINEERING AND MANAGEMENT, BANGALORE - 560109
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
SESSION: 2022-2023(EVEN SEMESTER)
LESSON PLAN

NAME OF THE STAFF : Dr. Kishore M
COURSE CODE/TITLE: 18EC81/WIRELESS AND CELLULAR COMMUNICATION
SEMESTER/YEAR : VIII/IV

Sl. No.	Topic to be covered	Mode of Delivery	Teaching Aid	No. of Periods	Cumulative No. of Periods	Proposed Date	Execution Date
MODULE 1							
1	Mobile Radio Propagation	L+D	BB+PPTs	1	1	13/02/2023	13/2/23
2	Large Scale Path Loss – Free Space Propagation Model, Relating Power to Electric FIELD	L+D	BB+PPTs	1	2	13/02/2023	13/2/23 14/2/23
3	Three Basic Propagation Mechanisms – Reflection (Ground Reflection)	L+D	BB+PPTs	1	3	14/02/2023	14/2/23 20/2/23
4	Diffraction, Scattering, Practical Link Budget	L+D	BB+PPTs	1	4	14/02/2023	20/2/23 21/2/23
5	Fading and Multipath – Broadband wireless channel, Delay Spread and Coherence Bandwidth	L+D	BB+PPTs	1	5	20/02/2023	21/2/23
6	Doppler Spread and Coherence Time, Angular spread and Coherence Distance	L+D	BB+PPTs	1	6	20/02/2023	27/2/23
7	Statistical Channel Model of a Broadband Fading Channel	L+D	BB+PPTs	1	7	21/02/2023	27/2/23
8	The Cellular Concept – Cellular Concept, Analysis of Cellular Systems, Sectoring	L+D	BB+PPTs	1	8	21/02/2023	28/2/23
MODULE 2							
9	GSM and TDMA Technology	L+D	BB+PPTs	1	9	27/02/2023	28/2/23
10	GSM System overview – Introduction	L+D	BB+PPTs	1	10	27/02/2023	6/3/23
11	GSM Network and System Architecture, GSM Channel Concept	L+D	BB+PPTs	1	11	28/02/2023	6/3/23 7/3/23

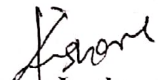
12	GSM Channel Concept	L+D	BB+PPTs	1	12	28/02/2023	7/3/23
13	GSM System Operations – GSM Identities	L+D	BB+PPTs	1	13	06/03/2023	14/3/23 14/3/23
14	System Operations –Traffic cases	L+D	BB+PPTs	1	14	06/03/2023	20/3/23
14	GSM Infrastructure Communications	L+D	BB+PPTs	1	14	07/03/2023	20/3/23
16	GSM Infrastructure Communications (Um Interface)	L+D	BB+PPTs	1	16	07/03/2023	21/3/23 21/3/23
MODULE 3							
17	CDMA Technology CDMA System Overview – Introduction	L+D	BB+PPTs	1	17	14/03/2023	27/3/23
18	CDMA Network and System Architecture	L+D	BB+PPTs	1	18	14/03/2023	27/3/23
19	CDMA Network and System Architecture	L+D	BB+PPTs	1	19	20/03/2023	4/4/23
20	CDMA Basics	L+D	BB+PPTs	1	20	20/03/2023	4/4/23
21	CDMA Channel Concepts	L+D	BB+PPTs	1	21	21/03/2023	10/4/23 10/4/23
22	CDMA Channel Concepts	L+D	BB+PPTs	1	22	21/03/2023	11/4/23
23	CDMA System (Layer 3) operations	L+D	BB+PPTs	1	23	27/03/2023	11/4/23
24	3G CDMA	L+D	BB+PPTs	1	24	27/03/2023	18/4/23
MODULE 4							
25	LTE – 4G Key Enablers for LTE 4G	L+D	BB+PPTs	1	25	04/04/2023	18/4/23
26	OFDM, SC-FDE, SC-FDMA	L+D	BB+PPTs	1	26	04/04/2023	24/4/23 24/4/23
27	Channel Dependent Multiuser Resource Scheduling	L+D	BB+PPTs	1	27	10/04/2023	25/4/23
28	Multi-Antenna Techniques	L+D	BB+PPTs	1	28	10/04/2023	25/4/23
29	Flat IP Architecture, LTE Network Architecture	L+D	BB+PPTs	1	29	11/06/2023	8/5/23
30	Multi-Carrier Modulation – Multicarrier concepts, OFDM Basics, OFDM in LTE	L+D	BB+PPTs	1	30	11/04/2023	8/5/23


31	Timing and Frequency Synchronization, Peak to Average Ratio, SC-Frequency Domain Equalization.	L+D	BB+PPTs	1	31	18/04/2023	9/5/23
32	Computational Complexity Advantage of OFDM and SC-FDE	L+D	BB+PPTs	1	32	18/04/2023	9/5/23
MODULE 5							
33	OFDMA and SC-FDMA – Multiple Access for OFDM Systems	L+D	BB+PPTs	1	33	24/04/2023	10/5/23
34	OFDMA, SCFDMA, Multiuser Diversity and Opportunistic Scheduling	L+D	BB+PPTs	1	34	24/04/2023	10/5/23
35	OFDMA and SC-FDMA in LTE	L+D	BB+PPTs	1	35	25/04/2023	11/5/23
36	OFDMA system Design Considerations	L+D	BB+PPTs	1	36	25/04/2023	11/5/23
37	The LTE Standard – Introduction to LTE	L+D	BB+PPTs	1	37	08/05/2023	9 Discussed Briefly
38	Hierarchical Channel Structure of LTE	L+D	BB+PPTs	1	38	08/05/2023	
39	Downlink OFDMA Radio Resources	L+D	BB+PPTs	1	39	09/05/2023	
40	Uplink SC-FDMA Radio Resources	L+D	BB+PPTs	1	40	09/05/2023	

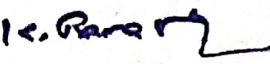
Total No. of Lecture Hours: 40

Total No. of Tutorial Hours: 00

Total No. of Revision Hours: 00


Course In charge


Head of the Department
Professor & Head
Dept. of Electronics & Communicator Engineering
S School of Engineering & Management
Bangalore-560 100


Principal
Dr. K. RAMA NARASIMHA
Principal/Director
K S School of Engineering and Management
Bangalore - 560 100

**KSSEM****K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU - 560109****DEPARTMENT OF CIVIL ENGINEERING****SESSION: 2022-2023 (EVEN SEMESTER)****LESSON PLAN****NAME OF THE STAFF : Mrs. AMRUTHA DHIRAJ****COURSE CODE/TITLE : BESCK204A/ INTRODUCTION TO CIVIL ENGINEERING****SEMESTER/YEAR : II / I-'B' Section (CSE)**

Sl. No.	Topic to be covered	Mode of Delivery	Teaching Aid	No. of Periods	Cumulative No. of Periods	Proposed Date	Execution Date
MODULE 1							
1	Civil Engineering Disciplines and Building Science Introduction to Civil Engineering: Surveying, Structural Engineering	L+D	LCD+BB	01	01	25/05/2023	25/5/23
2	Geotechnical Engineering, Hydraulics & Water Resources, Transportation Engineering, Environmental Engineering, Construction planning & Project management	L+ D	LCD+BB	01	02	29/05/2023	29/5/23
3	Tutorials	L+D	LCD+BB	02	04	31/05/2023	31/5/23
4	Basic Materials of Construction: Bricks, Cement & mortars, Plain Concrete	L+ D	LCD+BB	01	05	01/06/2023	1/6/23
5	Reinforced & Pre-stressed Concrete, Structural steel, Construction Chemicals	L+ D	LCD+BB	01	06	05/06/2023	7/6/23
6	Tutorials	L+ D	LCD+BB	02	08	07/06/2023	8/6/23
7	Structural elements of a building: foundation, plinth, lintel, Chejja, Masonry wall	L+ D	LCD+BB	01	09	08/06/2023	14/6/23
8	Column, beam, slab and staircase	L+D	LCD+BB	01	10	12/06/2023	15/6/23
MODULE 2							
9	Tutorials	L+ D	LCD+BB	02	12	14/06/2023	19/6/23

10	Societal and Global Impact of Infrastructure: Introduction to sustainable development goals, Smart city concept, Clean city concept, Safe city concept	L+D	LCD+BB	01	13	15/06/2023	21/6/23
11	Environment: Water Supply and Sanitary systems, urban air pollution management	L+D	LCD+BB	01	14	19/06/2023	22/6/23
12	Tutorials	L+D	LCD+BB	02	16	21/06/2023	22/6/23
13	Solid waste management, Identification of Landfill sites, urban flood control	L+D	LCD+BB	01	17	22/06/2023	24/6/23
14	Built-environment: Energy efficient buildings, recycling, Temperature and Sound control in buildings, Security systems; Smart buildings	L+D	LCD+BB	01	18	03/07/2023	8/7/23
15	Tutorials	L+D	LCD+BB	02	20	05/07/2023	10/7/23
MODULE 3							
16	Analysis of force systems: Concept of idealization, system of forces, principles of superposition and transmissibility	L+D	BB	01	21	06/07/2023	12/7/23
17	Tutorials	L+D, PS	BB	00	21	08/07/2023	13/7/23
18	Resolution and composition of forces, Law of Parallelogram of forces	L+D, PS	BB	01	22	10/07/2023	13/7/23
19	Tutorials	L+D, PS	BB	02	24	12/07/2023	19/7/23
20	Resultant of concurrent and non-concurrent coplanar force systems	L+D, PS	BB	01	25	13/07/2023	19/7/23
21	Moment of forces, couple, Varignon's theorem	L+D, PS	BB	01	26	17/07/2023	24/7/23
22	Tutorials	L+D, PS	BB	02	28	19/07/2023	26/7/23
23	Free body diagram, Equations of equilibrium, Equilibrium of concurrent force systems	L+D, PS	BB	01	29	20/07/2023	27/7/23
24	Equilibrium of concurrent and non-concurrent coplanar force systems	L+D, PS	BB	01	30	24/07/2023	31/7/23
MODULE 4							
25	Tutorials	L+D	BB	02	32	26/07/2023	1/8/23

26	Centroid: Importance of centroid and center of gravity	L+D, PS	BB	01	33	27/07/2023	3/8/23
27	Methods of determining the centroid	L+D, PS	BB	01	34	03/08/2023	7/8/23
28	Locating the centroid of plane laminae from first principles	L+ D, PS	BB	01	35	05/08/2023	16/8/23
29	Centroid of built-up sections	L+ D, PS	BB	01	36	07/08/2023	16/8/23
30	Tutorials	L+ D, PS	BB	02	38	09/08/2023	17/8/23
31	Centroid of built-up sections	L+ D, PS	BB	01	39	10/08/2023	19/8/23
32	Numerical examples	L+ D, PS	BB	01	40	14/08/2023	21/8/23
MODULE 5							
33	Tutorials	L+D	BB	02	42	16/08/2023	23/8/23
34	Moment of Inertia: Importance of Moment of Inertia, Method of determining the second moment of area (moment of inertia) of plane sections from first principles	L+D	BB	01	43	17/08/2023	24/8/23
35	Tutorials	L+D	BB	00	43	19/08/2023	28/8/23
36	Method of determining the second moment of area (moment of inertia) of plane sections from first principles	L+ D,PS	BB	01	44	21/08/2023	30/8/23
37	Tutorials	L+ D,PS	BB	02	46	23/08/2023	31/8/23
38	Parallel axis theorem and perpendicular axis theorem, Section modulus, radius of gyration	L+D, PS	BB	01	47	24/08/2023	4/9/23
39	Moment of inertia of built-up sections, Numerical Examples	L+ D,PS	BB	01	48	28/08/2023	6/9/23
40	Tutorials	L+ D,PS	BB	02	50	30/08/2023	6/9/23
41	Revision	L+ D,PS	BB	00	50	07/09/2023	7/9/23

Total No. of Lecture Hours = 26

Total No. of Tutorial Hours = 24+4

Total No. of Revision Hours= 01

Annette D
Course In charge

M
IRAC

M. Kelle
Head of the Department
Professor & Head
Dept. of Civil Engineering
K.S. Group of Institutions
K.S. School of Engineering & Management
Bangalore-560 062.

K. Rama
Principal
Dr. K. RAMA NARASIMHA
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K S School of Engineering and Management
Bengaluru - 560 109



KSSSEM

K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU - 560109

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

NAME OF THE STAFF : Mrs. Chandana V S

SUBJECT CODE/NAME : 18CS61/SYSTEM SOFTWARE AND COMPILERS

SEMESTER/SEC/YEAR : VI / B / III

ACADEMIC YEAR : 2022-2023

Sl. No.	Topic to be covered	Mode of Delivery	Teaching Aid	No. of Periods	Cumulative No. of Periods	Proposed Date	Execution Date
MODULE 1							
1	Introduction to System Software,	L+D	BB+LCD	1	1	20/3/2023	20/3/23
2	Machine Architecture of SIC	L+D	BB+LCD	1	2	21/3/2023	20/3/23
3	Machine Architecture of SIC/XE	L+D	BB+LCD	1	3	25/3/2023	28/3/23
4	Assemblers: Basic assembler functions,	L+D	BB+LCD	1	4	27/3/2023	23/3/23
5	Program Relocation	L+D	BB+LCD	1	5	28/3/2023	24/3/23
6	Programs on object generation(SIC)	L+D	BB+LCD	1	6	29/3/2023	27/3/23
7	Programs on object generation(SIC/XE)	L+D	BB+LCD	1	7	29/4/2023	28/3/23
8	Machine independent assembler features	L+D, PS	BB+LCD	1	8	01/4/2023	28/3/23
9	Assembler design options	L+D, PS	BB+LCD	1	9	4/4/2023	30/3/23
10	Basic Loader function	L+D, PS	BB+LCD	1	10	5/4/2023	3/4/23
MODULE 2							
11	Introduction: Language Processors,	L+D	BB+LCD	1	12	5/4/2023	5/4/23
12	The structure of a compiler	L+D	BB+LCD	1	13	10/4/2023	5/4/23
13	The evaluation of programming languages and the science of building compiler, Applications of compiler technology	L+D	BB+LCD	1	14	11/4/2023	6/4/23
14	Lexical Analysis: The role of lexical analyzer, Input buffering	L+D	BB+LCD	1	15	12/4/2023	11/4/23

	Assignment 1: Written assignment	Offline	Assignment book	0	15	12/4/2023	11/4/23
16	Input buffering(contd)	L+D	BB+LCD	1	16	12/4/2023	12/4/23
17	Specifications of token,	L+D	BB+LCD	1	17	15/4/2023	19/4/23
18	Specifications of token cont	L+D	BB+LCD	1	18	24/4/2023	19/4/23
19	Recognition of tokens	L+D	BB+LCD	1	19	25/4/2023	21/4/23
20	Recognition of tokens cont	L+D	BB+LCD	1	20	26/4/2023	21/4/23
21	Recognition of tokens(transition diagrams)	L+D	BB+LCD	1	21	26/4/2023	6/5/23

MODULE 3

22	Syntax Analysis:	L+D	BB	1	22	2/5/2023	6/5/23
23	Syntax Analysis: Cont.	L+D	BB	1	23	3/5/2023	6/5/23
24	Introduction, Role Of Parsers,	L+D, PS	BB	1	24	3/5/2023	6/5/23
25	Role Of Parsers Cont.	L+I, PS	BB	1	25	6/5/2023	9/5/23
26	Introduction: Role Of Parsers Cont..	L+I	BB	1	26	8/5/2023	9/5/23
27	Context Free Grammars	L+D	BB	1	27	9/5/2023	23/5/23
28	Writing a grammar	L+D, PS	BB	1	28	10/5/2023	23/5/23
29	Top Down Parsers	L+I, PS	BB	1	29	10/5/2023	23/5/23
30	Bottom-Up Parsers	L+D, PS	BB	1	30	15/5/2023	23/5/23
31	Bottom-Up Parsers Cont.	L+I, PS	BB	1	31	16/5/2023	23/5/23
	Assignment 2: Written assignment	Offline	Assignment book	0	31	16/5/2023	23/5/23

MODULE 4

32	Lex and Yacc –The Simplest Lex Program,	L+D, PS	BB+LCD	1	32	17/5/2023	31/5/23
33	Grammars, Parser-Lexer Communication,	L+D	BB+LCD	1	33	17/5/2023	5/6/23
34	A YACC Parser, The Rules Section, Running LEX and YACC	L+D	BB+LCD	1	34	27/5/2023	6/6/23
35	LEX and Hand- Written Lexers	L+D	BB+LCD	1	35	29/5/2023	7/6/23
36	Using LEX - Regular Expression, Examples of Regular Expressions	L+D, PS	BB+LCD	1	36	30/5/2023	7/6/23
37	A Word Counting Program, Using YACC – Grammars, Recursive Rules	L+D, PS	BB+LCD	1	37	31/5/2023	7/6/23
38	Shift/Reduce Parsing,	L+D	BB+LCD	1	38	31/5/2023	7/6/23

39	What YACC Cannot Parse, A YACC Parser - The Definition Section, The Rules Section, The LEXER,	L+D, PS	BB+LCD	1	39	12/6/2023	12/6/23
40	Compiling and Running a Simple Parser	L+D	BB+LCD	1	40	13/6/2023	14/6/23
41	Arithmetic Expressions and Ambiguity.	L+D, PS	BB+LCD	1	41	14/06/2023	14/6/23
MODULE 5							
42	Syntax Directed Translation	L+D	BB	1	42	14/06/2023	14/6/23
43	Syntax Directed Translation cont..	L+D	BB	1	43	19/06/2023	16/6/23
44	Examples	L+D	BB	1	44	20/06/2023	19/6, 21/6/23
45	Intermediate code generation,	L+D, PS	BB	1	45	21/06/2023	21/6/23
46	Three address code	L+D, PS	BB	1	46	21/6/2023	21/6/23
47	Examples on Digraph	L+D, PS	BB	1	47	24/06/2023	21/6/23
48	Examples on Three address code	L+D, PS	BB	1	48	26/6/2023	24/6/23
49	Examples(contd)	L+D, PS	BB	1	49	27/6/2023	26/6, 27/6/23
50	Code generation	L+D, PS	BB+LCD	1	50	28/6/2023	27/6, 28/6/23
51	Code generation(contd)	L+D, PS	BB+LCD	1	50	28/6/2023	28/6, 28/6/23
	Assignment 3: Written assignment	Offline	Assignment book	0	50	28/6/2023	28/6/23
REVISION							
52	Revision	L+D	BB+LCD	0	51	10/7/2023	6/7/23

Total No. of Lecture Hours = 50

Total No. of Revision Hours = 01

Total classes = 51

<p>Assignment 1</p>	<p>Written assignment – Module 1 and Module 2</p> <ul style="list-style-type: none"> • Machine architecture of SIC • Machine architecture of SIC/XE • Object code generation • Language processing • Structure of compiler • Input buffering <p>Note: Students will be given set of questions and they have to write in assignment books.</p>	<p>10/04/2023</p>
<p>Assignment 2</p>	<p>Written assignment – Module 2 and Module 3</p> <ul style="list-style-type: none"> • Specification of tokens • Recognition of tokens • CFG • Top down parsers • Bottom up parsers <p>Note: Students will be given set of questions and they have to write in assignment books</p>	<p>17/05/2023</p>

<p>Assignment 3</p>	<p>Written assignment – Module 4 and Module 5.</p> <ul style="list-style-type: none"> • CFG • Top down parsers • Bottom up parsers • SDT • Intermediate code generation • Code generation <p>Note: Students will be given set of questions and they have to write in assignment books.</p>	<p>28/06/2023</p>
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Course In charge



Head of the Department



HOD

Department of Computer Science Engineering
K.S School of Engineering & Management
Bangalore-560109

Principal

Dr. K. RAMA NARASIMHA

Principal/Director

K S School of Engineering and Management
Bengaluru - 560 109

15. June





KSSEM

K.S. SCHOOL OF ENGINEERING AND MANAGEMENT BENGALURU - 560109
DEPARTMENT OF BASIC SCIENCE

SESSION: 2022-2023 (EVEN SEMESTER)

LESSON PLAN

NAME OF THE STAFF : NAGARATHNA T K

COURSE CODE/TITLE : BMATS201/ MATHEMATICS-II FOR COMPUTER SCIENCE AND ENGINEERING

SEMESTER/YEAR : II SEM- B SEC / I

Sl. No.	Topic to be covered	Mode of Delivery	Teaching Aid	No. of Periods	Cumulative No. of Periods	Proposed Date	Delivery Date
MODULE 1							
1	Solution of polynomial and transcendental equations. Newton-Raphson methods	L+D	BLACK BOARD	1	1	26/5/2023	26/05/2023
2	Regula-Falsi method	L+D	BLACK BOARD	1	2	27/5/2023 29/5/2023	27/05/2023 29/05/2023
3	Finite differences - Interpolation/extrapolation using Newton's forward and backward difference	L+D	BLACK BOARD	1	3	30/5/2023	30/05/2023
4	Newton's divided difference	L+D	BLACK BOARD	1	4	31/5/2023	31/05/2023
5	Lagrange's formulae-problems	L+D	BLACK BOARD	1	5	31/5/2023	31/05/2023
6	Numerical integration: Simpson's 1/3 rule	L+D	BLACK BOARD	1	6	02/6/2023	02/06/2023
7	Elementary Numerical Methods: Finite differences - Interpolation/extrapolation using Newton's forward and backward difference	L+D	BLACK BOARD	1	7	05/6/2023	05/06/2023
8	Tutorials: Self-Study: Bisection method, Lagrange's inverse Interpolation.	L+D	BLACK BOARD	-	-	06/6/2023	06/06/2023
9	Tutorials: Applications: Estimating the approximate roots, extremum values, Area,	L+D	BLACK BOARD	-	-	07/6/2023	07/06/2023

	volume, and surface area. Errors in finite precision.						
10	Practicals: Solution of algebraic and transcendental equations by Ramanujan's, Regula-Falsi and Newton-Raphson method	L+D	BLACK BOARD	1	8	26/5/2023 27/5/2023 And 30/5/2023 02/6/2023	26/5/2023 27/5/2023 30/5/2023 02/6/2023
11	Practicals: Interpolation/Extrapolation using Newton's forward and backward difference formula	L+D	BLACK BOARD	1	9	06/6/2023 09/6/2023 And 13/6/2023 16/6/2023	13/6/2023 16/6/2023 20/6/2023 23/6/2023
12	Practicals: Computation of area under the curve using Trapezoidal, Simpson's (1/3)rd and (3/8)th rule	L+D	BLACK BOARD	1	10	20/6/2023 23/6/2023 And 30/6/2023 04/7/2023	30/6/2023 20/6/2023 23/6/2023
13	Revision	L+D	BLACK BOARD			07/6/2023 09/6/2023	14/06/2023
MODULE 2							
14	Numerical solutions of ODE's: First order first degree: Taylor series method-Problems	L+D	BLACK BOARD	2	12	12/6/2023 13/6/2023	13/06/2023 14/06/2023
15	Modified Euler's method-Problems	L+D	BLACK BOARD	2	14	14/6/2023 14/6/2023	14/6/2023 14/6/2023
16	Runge Kutta method of fourth order-Problems	L+D	BLACK BOARD	2	16	16/6/2023 19/6/2023	16/6/2023 19/6/2023
17	Milne's Predictor and Corrector method	L+D	BLACK BOARD	2	18	20/6/2023 21/6/2023	20/6/2023 21/6/2023
18	Tutorials: Self-Study: Adam-Bashforth method	L+D	BLACK BOARD	-		21/6/2023	21/6/2023 23/6/2023
19	Tutorials: Applications: Estimating the approximate solutions of ODE.	L+D	BLACK BOARD	-		23/6/2023	08/7/2023
20	Practicals: Solution of ODE of first order and first degree by Taylor's series and Modified Euler's method	L+D	BLACK BOARD	1	19	07/7/2023 And 11/7/2023	10/7/2023 10/7/2023
21	Practicals: Solution of ODE of first order and	L+D	BLACK	1	20	14/7/2023	11/7/2023

	first degree by Runge-Kutta 4th order and Milne's predictor-corrector method		BOARD			And 18/7/2023	14/7/2023 18/7/2023
22	Revision	L+D	BLACK BOARD			24/6/2023 30/6/2023	11/7/2023 12/7/2023
MODULE 3							
23	Vector Calculus: Vector Differentiation: Scalar and vector fields.	L+D	BLACK BOARD	1	21	03/7/2023	12/7/2023
24	Gradient, directional derivative; curl and divergence-physical interpretation	L+D	BLACK BOARD	1	22	04/7/2023	13/7/2023
25	Solenoidal and irrotational vector fields- Illustrative problems	L+D	BLACK BOARD	1	23	05/7/2023	18/7/2023
26	Curvilinear coordinates: Scale factors, base vectors, Cylindrical polar coordinates	L+D	BLACK BOARD	1	24	05/7/2023	19/7/2023
27	Spherical polar coordinates	L+D	BLACK BOARD	1	26	07/7/2023	19/7/2023
28	transformation between cartesian and curvilinear systems, orthogonality. Problems.	L+D	BLACK BOARD	2	28	08/7/2023 10/7/2023	20/7/2023 21/7/2023
29	Tutorials: Self-Study: Vector integration and Vector line integral.	L+D	BLACK BOARD	-	-	11/7/2023	24/7/2023
30	Tutorials: Applications: Conservation of laws, Electrostatics, Analysis of streamlines.	L+D	BLACK BOARD	-	-	12/7/2023	25/7/2023
31	Practicals: Finding gradient, divergent, curl and their geometrical interpretation	L+D	BLACK BOARD	1	29	21/7/2023 22/7/2023 And 25/7/2023	26/7/2023 26/7/2023 27/7/2023
32	Practicals: Computation of basis and dimension for a vector space and Graphical representation of linear transformation	L+D	BLACK BOARD	1	30	28/7/2023 And 04/8/2023 05/8/2023	28/7/2023 25/7/2023 28/7/2023
33	Revision	L+D	BLACK BOARD			12/7/2023 14/7/2023	28/7/2023 01/8/2023
MODULE 4							
34	Review of elementary integral calculus. Multiple integrals: Evaluation of double and triple integrals	L+D	BLACK BOARD	2	32	17/7/2023 18/7/2023	02/8/2023 02/8/2023


35	Evaluation of double integrals- change of order of integration	L+D	BLACK BOARD	1	33	19/7/2023	02/8/2023
36	Evaluation of double integrals- changing into polar co-ordinates.	L+D	BLACK BOARD	1	34	19/7/2023	04/8/2023
37	Applications to find area volume and centre of gravity	L+D	BLACK BOARD	2	36	21/7/2023 22/7/2023	05/8/2023 05/08/2023
38	Beta and Gamma functions: Definitions, Relation between beta and gamma functions	L+D	BLACK BOARD	2	38	24/7/2023 25/7/2023	16/8/2023 16/8/2023
39	Tutorials: Problem Solving Center of gravity, Duplication formula.	L+D	BLACK BOARD	-		26/7/2023	17/8/2023
40	Tutorials: Applications: Antenna and wave propagation, Calculation of optimum value in various geometries. Analysis of probabilistic models.	L+D	BLACK BOARD	-		26/7/2023	18/8/2023
41	Practical: Program to compute area, surface area, volume and centre of gravity	L+D	BLACK BOARD	1	39	08/8/2023 And 11/8/2023	01/08/2023 04/08/2023
42	Practical: Evaluation of improper integrals.	L+D	BLACK BOARD	1	40	18/8/2023 19/8/2023 And 22/8/2023	08/8/2023 04/8/2023
43	Revision	L+D	BLACK BOARD			28/7/2023 04/8/2023	18/8/2023
MODULE 5							
44	Vector spaces: Definition and examples, subspace, linear span	L+D	BLACK BOARD	1	41	05/8/2023	18/8/2023
45	Linearly independent and dependent sets,	L+D	BLACK BOARD	2	43	07/8/2023 08/8/2023	22/8/2023
46	Basis and dimension. Problems.	L+D	BLACK BOARD	1	44	09/8/2023	22/8/2023
47	Linear transformations: Definition and examples, Algebra of transformations, Matrix of a linear transformation	L+D	BLACK BOARD	2	46	09/8/2023 11/8/2023	22/8/2023
48	Change of coordinates, Rank and nullity of a linear operator, rank-nullity theorem	L+D	BLACK BOARD	2	48	14/8/2023 16/8/2023	23/8/2023

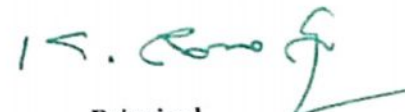
49	Inner product spaces and orthogonality. Problems.	L+D	BLACK BOARD	1	49	16/8/2023	23/8/2023
50	Tutorials: Problem solving Self-study: Angles and Projections. Rotation, Reflection, Contraction and Expansion	L+D	BLACK BOARD	-		18/8/2023	23/8/2023
51	Tutorials: Applications: Image processing, AI & ML, Graphs and networks, Computer graphics.	L+D	BLACK BOARD	-		19/8/2023	24/8/2023
52	Practical: Computing the inner product and orthogonality	L+D	BLACK BOARD	1	50	25/8/2023 29/8/2023 And 08/9/2023	8/8/2023 18/8/2023 09/08/2023
53	Revision	L+D	BLACK BOARD			21/8/2023 22/8/2023 23/8/2023	24/8/2023
54	Revision	L+D	BLACK BOARD			23/8/2023 25/8/2023 28/8/2023	25/8/2023
55	Revision	L+D	BLACK BOARD			29/8/2023 30/8/2023 30/8/2023 08/9/2023	29/8/2023

	Mode of Assignments and Instructions	Date
Assignment 1	Problem solving (Written Assignment)	
Assignment 2	Problem solving and Model question paper solutions	

Total No. of Lecture Hours = 40
 Total No. of Tutorial Hours = 10
 Total no. of Practical Classes = 10
 Revision = 18


 Course In charge


 Head of the Department
Dr. C. VASUDEV
 Professor & HOD
 Department of Applied Science
 K.S. School of Engineering & Management
 Bangalore - 560 109


 Principal
 Dr. K. RAMA NARASIMHA
 Principal/Director
 K S School of Engineering and Management
 Bengaluru - 560 109



K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU - 560109

DEPARTMENT OF ARTIFICIAL INTELLIGENCE & DATA SCIENCE

SESSION: 2022-2023 (EVEN SEMESTER)

LESSON PLAN

NAME OF THE STAFF : Pavana H

COURSE CODE/TITLE : 21CS43/Microcontroller and Embedded Systems

SEMESTER/YEAR : IV/II

Sl. No.	Topic to be covered	Mode of Delivery	Teaching Aid	No. of Periods	Cumulative No. of Periods	Proposed Date	Delivery Date
MODULE 1							
1	Microprocessors versus Microcontrollers	L+D	BB	1	1	17/5/2023	17/5/23
2	ARM Embedded Systems: The RISC design philosophy	L+D	BB	1	2	18/5/2023	18/5/23
3	The ARM Design Philosophy	L+D	BB	1	3	19/5/2023	22/5/23
4	Embedded System Hardware	L+D	BB	1	4	23/5/23	23/5/23
5	Embedded System Software	L+D	BB	1	5	24/5/23	24/5/23
6	ARM Processor Fundamentals: Registers, Current Program Status Register	L+D	BB	1	6	25/2/23	25/2/23
7	Exceptions. Interrupts. Pipeline	L+D	BB	1	7	26/5/23	26/5/23

8	The Vector Table, Core Extension	L+D	BB	1	8	27/5/23	29/5/23
9	Practical: 1. Introduction to Kiel software Simple ALP programs to observe CPSR and registers.	Practical	D	3	3	29/5/23-41 22/5/23-02	24/5/23 25/5/23
10	Tutorial	L+D	BB	4	-	31/5/23 30/5/23	30/5/23 31/5/23
MODULE 2: Introduction to the ARM Instruction Set, C Compilers and optimization							
11	Introduction to the ARM Instruction Set : Data Processing Instructions	L+D	BB	1	9	1/6/23	1/6/23
12	Data Processing introduction, Branch instructions	L+D	BB	1	10	2/6/23	2/6/23
13	Software Interrupt Instructions, Program Status Register Instructions	L+D	BB	1	11	6/6/23	7/6/23
14	Coprocessor Instructions, Loading Constants	L+D	BB	1	12	7/6/23	14/6/23
15	Basic C data types	L+D	BB	1	13	8/6/23	15/6/23
16	C Looping structures	L+D	BB	1	14	9/6/23	16/6/23
17	Register allocation, Function calls	L+D	BB	1	15	13/6/23	20/6/23
18	Pointer Aliasing	L+D	BB	1	16	14/6/23	21/6/23
19	Practical: 1. Write a program to find the sum of first 10 integer numbers.	Practical	D	3	6		

	2. Write a program to find the factorial of a number. 3. Write a program to add an array of 16 bit numbers 4. Write a program to find the square of a number (1 to 10) using lookup table.							A1-26/5/23	A-31/5/23
20	Tutorial	L+D	BB	4	-	16/6/23	22/6/23	21/6/23	22/6/23

MODULE 3: C Compilers and Optimization, ARM programming using assembly language

21	Structure arrangement, Bit-fields	L+D	BB	1	17	29/6/23	23/6/23
22	Unaligned data and Endianness division	L+D	BB	1	18	24/6/23	23/6/23
23	Floating point, inline functions	L+D	BB	1	19	27/6/23	30/6/23
24	Inline assembl, portability issues.	L+D	BB	1	20	28/6/23	11/7/23
25	ARM programming using Assembly language: Writing Assembly code	L+D	BB	1	21	30/6/23	12/7/23
26	Profiling and cycle counting	L+D	BB	1	22	4/7/23	13/7/23
27	Instruction scheduling, Allocation	L+D	BB	1	23	5/7/23	14/7/23
28	Conditional Execution, Constructs	L+D	BB	1	24	6/7/23	18/7/23
29	Practical:	Practical		3	9	A1-9/6/23 A2-12/6/23	14/6/23 15/6/23

	1. Write a program to find the largest or smallest number in an array of 32 numbers 2. Write a program to arrange a series of 32 bit numbers in ascending/descending order 3. Write a program to count the number of 1 and 0 in two consecutive memory locations. 4. Display "Hello world" using internal UART		D					A1-16/4/23 A2-26/6/23	8/7/23 13/7/23
30	Tutorial	L+D	BB	3	-			7/7/23 8/7/23	19/7/23 20/7/23

MODULE 4: Embedded System components

	Embedded System Components: Embedded Vs General computing system	L+D	BB	1	25			11/7/23	25/7/23
31	History of embedded systems, Classification of Embedded systems	L+D	BB	1	26			12/7/23	26/7/23
32	Major applications areas & purpose of embedded systems	L+D	BB	1	27			13/7/23	27/7/23
33	Core of an Embedded System including all types of processor/controller	L+D	BB	1	28			14/7/23	28/7/23
34	Memory, Sensors, Actuators, LED, 7 segment LED display	L+D	BB	1	29			18/7/23	11/8/23
35	stepper motor. Keyboard.	L+D	BB	1	30			19/7/23	2/8/23

37	Push button switch, Communication Interface (onboard and external types)	L+D	BB	1	31	20/7/23	3/8/23
38	Embedded firmware, Other system components	L+D	BB	1	32	21/7/23	3/8/23
39	Practical: 1. Interface and control DC motor 2. Interface a stepper motor and rotate in clock wise and anti-clockwise 3. determine Digital output for analog input using ARM. 4. Interface a DAC and generate triangular and square waveforms	Practical	D	3	12	A1-23/9/23	19/7/23
						A2-3/7/23	20/7/23
						A1-10/7/23	
						A2-19/7/23	
40	Tutorial	L+D	BB	1	-	22/7/23 25/7/23 26/7/23	4/8/23 8/8/23 4/8/23
MODULE 5:RTOS and IDE for embedded System Design							
41	Operating system basics, types of OS	L+D	BB	1	33	27/7/23	9/8/23
42	Task, Process and threads	L+D	BB	1	34	28/7/23	16/8/23
43	Multiprocessing and multitasking	L+D	BB	1	35	3/8/23	17/8/23
44	Task communication, synchronization issues	L+D	BB	1	36	4/8/23	18/8/23
45	Concept of binary and counting semaphores	L+D	BB	1	37	8/8/23	22/8/23
46	Embedded system development and environment-block diagram, disassembler	L+D	BB	1	38	9/8/23	23/8/23

47	Simulator, emulator, debugging techniques	L+D	BB	1	39	10/8/23	24/8/23
48	Target hardware debugging, Boundary scan	L+D	BB	1	40	11/8/23	28/8/23
49	<ol style="list-style-type: none"> Interface a 4x4 keyboard and display the key code on an LCD Demonstrate the use of external interrupt to toggle an LED on/off Display the HEX digits 0 to F on a 7 Segment LED interface with delay Demonstrate of IOT applications by using Aurdino. 	Practical	D	3	15	24/7/23 14/8/23 21/8/23 28/8/23	22/3/8/23 21/7/8/23 A2-24/5/23 A1-30/6/23 A2=31/8/23
50	Tutorial	L+D	BB	2	-	16/8/23 17/8/23	30/8/2023 31/8/2023
51	Revision	L+D	BB	2	-	18/8/23 31/8/23	1/9/23 4/9/23 5/9/23

Week		Remarks
Assignment 1	4 th Week	
Assignment 2	6 th Week	

Mode of Assignment – Written Assignment

Total No. of Lecture Hours = 40

Total No. of Tutorial Hours = 15
Total No. of Practical Hours = 20

Parvati
Course in charge

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