2016-17

MINUTES

Name of the meeting: 16th Board of Studies Meeting
of Computer Science and Engineering Department
held on 13/12/16 2016, at 2:00 A.M./P.M. under the chairmanship of Sri Dr. V. Srikanth
at Room Number - C408, C-Block, K L University

K L University
u/s 3 of UGC Act, 1956
Koneru Lakshmaiah Education Foundation

To
The Dean -Academics
K L University
Vaddeswaram

Dear Sir,

Sub: Minutes of the BOS meeting, Computer Science & Engineering Dept. held on 13-12-16 at C408 2:00 PM to 5:00 PM Reg.,

Enclosed, Please find B.Tech [CSE] - Program Curriculum & Syllabus approved by BOS for the following

I. Minutes of the 16th BOS- CSE Meeting and Annexure for agenda items
   a. Minutes of the DAC Meetings held on 10th November and 13th December.
      i. Revised LTP, PBL(Project based lab) implementation, Evaluation criteria for B.Tech [CSE]- 2014-15 & 2015-16 Curriculum and Syllabus.
      ii. Summarization of Changes In B.Tech CSE 2015 – 2016 Syllabus
   b. Revised LTP for Professional Core Courses of B.Tech [CSE]-2015-16 and Revised PBL(Project based lab) implementation to Core Courses of B.Tech [CSE]-2014-15
   c. Revised outcomes and Blooms taxonomy Levels of some courses for B.Tech [CSE]-2015-16.

Thanking You,

Yours sincerely

Dr.V.Srikanth
Chairman BOS - CSE

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K L University

(u/s 3 of UGC Act, 1956)
Koneru Lakshmaiah Education Foundation

Minutes of the BOS meeting, Computer Science & Engineering Dept. held on 13-12-2016 at C408, 2:00 PM to 5:00 PM.

The following agenda items are discussed and the resolutions passed are marked against them:-

S.No	Agenda Item	Resolution
1.	Confirmation of Previous Minutes of the DAC Meeting a) Revised LTP, PBL(Project based lab) implementation, and Evaluation criteria for B.Tech [CSE]- 2014-15 & 2015-16 Curriculum and Syllabus. b) Summarization of Changes In B.Tech CSE 2015 – 2016 Syllabus.	Confirmed
B.Tech program		
2.	Revised LTP, PBL(Project based lab) implementation, and Evaluation criteria for B.Tech [CSE]- 2014-15 & 2015-16 Curriculum and Syllabus. Annexure - I	Approved
3.	Approved the Syllabus with revised outcomes and Blooms taxonomy Levels of some courses for B.Tech [CSE]-2015-16. Annexure – II, Annexure - III	Approved

1. Discussed the Previous Minutes of the DAC Meeting.
2. As some Professional Core Courses doesn't require lab component and project component, BOS Approved the Revised LTP for Professional Core Courses of B.Tech [CSE]-2015-16 and Revised PBL(Project based lab) component implementation to Core Courses of B.Tech [CSE]-2014-16. BOS also Approved the Evaluation criteria for B.Tech [CSE]-2015-16 Curriculum Refer Annexure – I
3. Approved the Syllabus with revised outcomes and Blooms taxonomy Levels of some courses for B.Tech [CSE]-2015-16. Annexure – II, Annexure - III

Consequent to these resolutions, the necessary changes shall be carried out in the course structure and framework and the same will be circulated within a week.

Dr.V.Srikanth
Chairman BOS - CSE

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MINUTES

Name of the meeting: 16th Board of Studies Meeting
of Computer Science and Engineering Department
held on 13/12/2016, at 2:00 A.M./P.M. under the chairmanship of Sri Dr. V. Srikanth
at Room Number - C408, C-Block, K.L. University.

K L University
u/s 3 of UGC Act, 1956
Koneru Lakshmaiah Education Foundation

BOS- MEMBERS
CSE DEPARTMENT 13/12/2016

S.No	Name	Designation	Signature
1.	Dr. V. SRIKANTH	Chairman	
2.	Dr. D.V.L.N. SOMAYAJULU	External Member	
3.	Mr. M. MUNI REDDY	External Member	
4.	Dr. L. S. S. REDDY	Member	
5.	Dr. V. CHANDRA PRAKASH	Member	13-12-16
6.	Dr. G RAMAKRISHNA	Member	
7.	Dr. S. VENKATESWARLU	Member	
8.	Dr. K. SUBRAHMANYAM	Member	
9.	Dr. M. R. NARASING RAO	Member	
10.	Dr. B. VIJAYA BABU	Member	
11.	Dr. D. RAJESWARA RAO	Member	
12.	Dr. M.S.R PRASAD	Member	
13.	Dr. K. V. V. SATYANARAYANA	Member	
14.	Dr. K. THIRUPATHI RAO	Member	
15.	Dr. B. THIRUMALA RAO	Member	
16.	Dr. V. KRISHNA REDDY	Member	
17.	Dr. Y. PRASANTH	Member	
18.	Dr. K RAJASEKHAR	Member	

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13/12/2016

19.	Dr. P. SAI KIRAN	Member	
20.	Dr. G. SRIDEVI	Member	
21.	Dr. GANDHARBA SWAIN	Member	
22.	Dr. K. SUBBA RAO	Member	
23.	Dr. T. NARAYAN SANKAR	Member	
24.	Dr. M. SREEDEVI	Member	
25.	Dr. N. SRINIVASU	Member	
26.	Dr. C. M. SHEELA RANI	Member	
27.	Dr. P. RAJARAJESWARAI	Member	
28.	Dr. V. VIJAYARAJA	Member	
29.	Dr. M. NAGABHUSHANA RAO	Member	
30.	Dr. V. RAMA KRISHNA	Member	
31.	Dr. S. SATYANARAYANA	Member	
32.	Dr. G. KRISHNA MOHAN	Member	
33.	Dr. V. SUCHARITA	Member	
34.	Dr. K.V.DURGA KIRAN	Member	
35.	Dr. B. NAGA JAGADESH	Member	
36.	Dr. K. BHAGAVAN	Member	
37.	Dr. P. M. ASHOK KUMAR	Member	
38.	Dr. P. SELVA PERUMAL	Member	
39.	Dr. C. V. P. R. PRASAD	Member	
40.	Dr. M. NAGESWARA RAO	Member	
41.	Dr. J. AMUDHAVEL	Member	
42.	Mr. M. VISHNUVARDHAN	Member	
43.	Mrs. CH. RADHIKA RANI	Member	
44.	Mrs. V. DIVYA	Member	

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BOS- MEMBERS
CSE DEPARTMENT

29th June, 2016

S.No	Name	Designation	Signature
1.	Dr.V. SRIKANTH	Chairman	
2.	Dr. D.V.L.N. SOMAYAJULU	External Member	
3.	Mr. M. MUNI REDDY	External Member	
4.	Dr. L. S. S. REDDY	Member	
5.	Dr.V.CHANDRA PRAKASH	Member	29-6-16
6.	Dr. G RAMAKRISHNA	Member	
7.	Dr.S.VENKATESWARLU	Member	
8.	Dr. K. SUBRAHMANYAM	Member	
9.	Dr.M.R.NARASING RAO	Member	
10.	Dr.B.VIJAYA BABU	Member	
11.	Dr.D.RAJESWARA RAO	Member	
12.	Dr. M.S.R PRASAD	Member	
13.	Dr.K.V.V.SATYANARAYANA	Member	
14.	Dr.K.THIRUPATHI RAO	Member	
15.	Dr.B.THIRUMALA RAO	Member	
16.	Dr.V.KRISHNA REDDY	Member	
17.	Dr.Y.PRASANTH	Member	

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27th June, 2016.

18.	Dr. K RAJASEKHAR	Member	
19.	Dr.P.SAI KIRAN	Member	
20.	Dr.G.SRIDEVI	Member	
21.	Dr.GANDHARBA SWAIN	Member	
22.	Dr.K.SUBBA RAO	Member	
23.	Dr.T.NARAYAN SANKAR	Member	
24.	Dr.M.SREEDEVI	Member	
25.	Dr.N. SRINIVASU	Member	
26.	Dr.G.PRADEEPINI	Member	
27.	Dr.C.M.SHEELA RANI	Member	
28.	Dr.A.V. KRISHNA PRASAD	Member	
29.	Dr. G. KRISHNA MOHAN	Member	
30.	Dr.P.RAJARAJESWARAI	Member	
31.	Dr. K.V.DURGA KIRAN	Member	
32.	Mr.A.V.PRAVEEN KRISHNA	Member	
33.	Mrs.V.DIVYA	Member	

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The following agenda items are discussed and the resolutions passed are marked against them:-

S.No	Agenda Item	Resolution
1.	Confirmation of Previous Minutes of Meeting dated 3/6/16	Confirmed
B.Tech and M.Tech program		
2.	Revised Syllabus for C&DS of B.Tech [CSE]	Approved
3.	Revised Syllabus for Simulation and Modeling of B.Tech [CSE]	Approved
4.	Approved for new Syllabus for IOT of M.Tech	Approved

1. For 2015-16 regulations syllabus modification of C & DS into two halves, C & DS-1 and the syllabus up to the end of trees, C &DS-2 syllabus from stacks to hashing
2. For 2015-16 regulations syllabus modification of Simulation & Modeling
3. Introducing new M.Tech Programs from the academic year 2016-17: M.Tech – Internet of Things.

Consequent to these resolutions, the necessary changes shall be carried out in the course structure and framework and the same will be circulated within a week.

29/06/16

Dr.V.Srikanth
Chairman BOS - CSE

Dr. V. SRIKANTH
Head of the Department
Computer Science and Engineering
KL UNIVERSITY
VADDESWARAM-522 502, Guntur Dt.

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Koneru Lakshmaiah Education Foundation

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Date:08-06-2016

Department Academic Committee Meeting

The following Agenda Items are discussed and the resolutions passed are marked against them.

Serial Number	Agenda Item	Resolution
1.	Proposed for the Confirmation of previous minutes of meeting.	Confirmed and to discuss in BOS.
2.	To discuss feedback obtained from various stake holders.	Confirmed and to discuss in BOS.
3.	To disccuss on External Result Analysis.	Confirmed and to discuss in BOS.
4.	To discuss on the reccommendations sugested by course coordinators.	Confirmed and to discuss in BOS.
B.Tech and M.Tech Program		
5.	To discuss and revise syllabus for ADS and split it into C&DS1 and C&DS2 of B.Tech(CSE)	Confirmed. To comply with the OBE for B.Tech CSE and on the external result analysis, and course coordinator recommendations, the course syllabus is recommended for revision.
6.	To discuss and revise the syllabus for simulation and modelling of B.Tech(CSE)	Confirmed. To comply with the recommendations of stake holders and Prerequisite course coordinator.
7.	To discuss and revise the syllabus of B.Tech(CSE) 2016-2017 regulation in R16 Annexure(B.Tech)-I	Confirmed and to be discussed in BOS.
8.	To discuss and specify new syllabus for IOT of M.Tech	Confirmed.

Dr. G. Krishna Mohan
Alternate HOD
Computer Science & Engineering
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All programs for 2016-17 has been framed to be in relevance to APIIC, Human Resource Development Policy, Govt. of India, National Skill Development Corporation, Govt. of India, Confederation of Indian Industries, ABET, NBA norms, O*NET and AICTE statutory norms.
Thus, framed curriculum has been developed through framing of Program Educational Objectives (PEO's) which are mapped to the university Vision and Mission, which are there by disseminated into Student Outcomes (SO's) which thereby have been developed into relevant Course Outcomes (CO's).

The resolutions are forwarded to BOS committee, for the approval.

HOD-CSE

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Guntur District, Andhra Pradesh.

K L University
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Deemed to be University, Estd. u/s 3 of UGC Act, 1956
Accredited by NAAC as 'A' Grade University • Approved by AICTE • ISO 9001-2008 Certified
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Admin Off: 29-36-38, Museum Road, Governorpet, Vijayawada - 520 002, Ph: +91-866-2577715, Fax: +91-866-2577717.

Department of Computer Science and Engineering

Alumni Feedback on Curriculum

Academic Year (2014-15) Sem 2

1. To include quality concepts in Software Testing course and reframe the course name accordingly.
2. Network Security related courses can be added in to the curriculum since need for forensics is required widely.
3. Course Emphasizing on the usage of Animation Tools can be included in to curriculum.
4. Automata courses must cover fundamentals of Natural Language processing.
5. Certificate course based on gaming to be introduced.
6. To include new course on Graph Analytics.
7. For C and DS, Advanced Data structures to be introduced to prepare students towards high end jobs and to enhance programming skills.
8. To change Compiler Design to Language and Compilers as Principles of Programming languages concepts and include Low level program compilation to high level program compilation process.
9. To modify Computer Networks course syllabus by including Python Network programming and NS3 concepts.
10. Big Data and IOT streams can be added newly in M.Tech programs.
11. A course on any foreign languages could be introduced for employability.
12. Research opportunities require courses like Automta and Soft computing in Post graduate program.

HOD-CSE

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Department of Computer Science Engineering

R16 Annexure(B.Tech)-I

Sno	Course Code	Course Title	L-T-P	Credits	S.NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
1	15 EN 1101	Rudiments of Communication Skills	2-0-0	2	1	CO 1	Remember speech sounds and apply stress and intonation rules to enhance pronunciation skills.							1					1		Retained from previous curriculum	Enhances Skills in communication whish inturn helps in achieving Employability
					2	CO 2	Understand writing strategies and apply those by using the basic and advanced concepts of grammar.							1					1			
					3	CO 3	Understand the types of texts and tone of the author.							1					1			
					4	CO 4	Understand the importance of interpersonal skills							1					1			
2	15 EN 1202	Interpersonal Communication Skills	2-0-0	2	5	CO 1	Understand the method of identifying the meaning of words from the context and form sentences using words.							1					2		Retained from previous curriculum	Enhances Skills in communication whish inturn helps in achieving Employability
					6	CO 2	Understand and analyze seven types of reading techniques and improve reading speed.							2					1			
					7	CO 3	Understand and apply writing strategies for office/ formal communication.							2					1			
					8	CO 4	Understand and analyze different cultures and the importance of empathy in cross-cultural communication.							1					2			
3	15 EN 2103	Professional Communication Skills	0-0-4	2	9	CO 1	Understand the concept of Group Discussion and listen and speak effectively during the discussion.							1					2		Retained from previous curriculum	Enhances Skills in communication whish inturn helps in achieving Employability
					10	CO 2	Understand and improve learners' competency in competitive English and apply the principles of grammar in real life contexts.							2					2			

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Associate HOD
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Guntur District, Andhra Pradesh

Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
					11	CO 3	Understand skimming & scanning, and apply the types of reasoning in comprehending the information.							3					1			Employability
					12	CO 4	Understand the mechanics and application of presentation skills.						1						2			
4	15 EN 2204	Employability Skills	0-0-4	2	13	CO 1	Analyze one's own strength as a speaker/ Communicator and use discretion while listening.							2					1		Retained from previous curriculum	
					14	CO 2	Apply and analyze various concepts of writing strategies in professional communication skills like, reports, resume and minutes of the meeting.							3					2			Enhances Skills in communication whish inturn helps in achieving Employability
					15	CO 3	Understand the organization of the passage and also analyze the tone, attitude and style of the author.							2					1			
					16	CO 4	Acquire knowledge of and apply people skills in various social organizational and corporate ambiences.						2						1			
5	15 EN 3105	Verbal and Quantitative Reasoning	0-0-4	2	17	CO 1	Understand the method of identifying synonyms and antonyms and analyze the meaning of a word from the context.									1			1		Retained from previous curriculum	
					18	CO 2	Analyze issues and arguments in the process of critical reasoning and apply grammar rules to correct sentences.									1			1			Enhances Skills in communication whish inturn helps in achieving Employability
					19	CO 3	Apply the Concepts of basic Algebra and their importance while solving the problems									1			1			
					20	CO 4	Apply the short-cut methods on the concepts of different models in Calendars, Clocks, Blood relations and various types of arrangements.									1			1			
6					21	CO 1	Understand and analyze the depth of a topic and use the advanced levels in creative speaking and debating.								1				1		Retained from previous curriculum	

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Guntur District, Andhra Pradesh

Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
	15 EN 3206	Corporate Communication Skills	0-0-4	2	22	CO 2	Understand and analyze various strategies involved in writing an essay and apply various styles in writing.							2					2			Enhances Skills in communication whish inturn helps in achieving Employability
					23	CO 3	Understand and analyze the given text critically and answer questions on critical reasoning based on the given information.							3					1			
					24	CO 4	Acquire knowledge on various employability skills & analyze a situation and develop adaptability.							3					2			
					25	CO5	Apply the Concepts of basic geometry and their importance while solving the problems.							2					3			
7	15 GN 1001	Ecology and Environment	2-0-0	2	26	CO 1	Understand the importance of Environmental education and conservation of natural resources.								1				1		Retained from previous curriculum	Helps to understand the importance of Envionment & Sustaiability
					27	CO 2	Understand the importance of ecosystems and biodiversity.									1			2			
					28	CO 3	Apply the environmental science knowledge on solid waste management, disaster management and EIA process.								2				1			
8	15 GN 1002	Human Values	2-0-0	2	29	CO1	Understand and identify the basic aspiration of human beings						1						1		Retained from previous curriculum	Helps to understand the importance of Envionment & Sustaiability
					30	CO2	Envisage the roadmap to fulfill the basic aspiration of human beings.						2						2			
					31	CO3	Analyze the profession and his role in this existence.						2						2			
9					32	CO-1	Formulate physical laws and relations mathematically in the form of first order differential equations and identify a method for solving and interpreting the results.					1							1		Retained from previous curriculum	

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Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
	15 MT 1001	Single Variable Calculus and Matrix Algebra	2.2.2	4	33	CO-2	Formulate physical laws and relations mathematically in the form of second/higher order differential equations and identify a method for solving and interpreting the results.					1							2			Enhances the skills towards Mathematical foundations
					34	CO-3	Provide solutions for Fourier serics of periodic/non-periodic phenomenon in models involving differential equations.					1							1			
					35	CO-4	Apply numeric solution methods for a system of linear algebraic equations and application oriented matrix eigenvalue problems.					1							1			
					36	CO-5	Verify the solution of problems through MATLAB.											1	1			
10	15 MT 1203	Multivariate Calculus	2.2.2	4	37	CO 1	Determine the maximum and minimum values for the function involving two variables					2							2		Retained from previous curriculum	Enhances the skills towards Mathematical foundations
					38	CO 2	Calculate the length of the arc, area, volume of the surface of a solid revolution					2							2			
					39	CO 3	Model the given phenomena as a partial differential equations of first and second orders											2	2			
					40	CO 4	Solve the partial differential equations by analytical and finite difference methods					2							2			
					41	CO 5	Verify the solution of problems through MATLAB.											2	2			
11	15 MT 2005	Probability and Stochastic	2.2.2	4	42	CO 1	Construct the probability distribution of a random variable, based on a real-world situation, and use it to compute expectation and variance					2							2		Retained from previous curriculum	Enhances the skills towards
					43	CO 2	Predict the relationship between two variables and construct the linear and non-linear regression lines for the given data					2							2			

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Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
		Models			44	CO 3	Model the Single and multi server markovian queuing models with finite and infinite capacity.											2	2			Mathematical foundations
					45	CO 4	Verify and validate the simulation models.											2	2			
					46	CO5	Verify the solution of problems through MATLAB/MINITAB.											2	2			
12	15 ME 1001	Mechanics	2-2--2	4	47	CO 1	Apply the concept of forces, governing static equations and analyze planer system of forces. Apply different analytical methods on spatial system of forces and analyzing them	2											2		Retained from previous curriculum	Enhances the skills in Engineering Foundational Concepts
					48	CO 2	Understanding the concepts of planar and non-planar system of parallel forces and analyzing them. estimate moment of inertia of lamina and material bodies	2											2			
					49	CO 3	Analyzing the rigid bodies under translation and rotation with and without considering forces.					1							1			
					50	CO 4	Understanding the engineering mechanics physical systems prepare and demonstrate the models with the help of mechanics concepts to solve the engineering problems					1							1			
					51	CO5	Apply the concepts of mechanics and carryout different experiments and analyze the results		2										2			
13					52	CO 1	Understand the concepts of crystallography and crystalline imperfections in order to determine crystal structures and to identify defects in crystals			1									1		Retained from previous curriculum	
					53	CO 2	Understand electrical and optical properties of materials and apply them to know various mechanisms involved in electrical, electronic, optical, optoelectronic devices.			1									1			

Dr. G. Krishna Mohan
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Sno	Course Code	Course Title	L-T-P	Credits	S NO	J NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
	15 PH 1001	Engineering Materials	2-2--2	4	54	CO 3	Understand mechanical and thermal properties of materials and apprehend their importance in identification of materials for specific engineering applications			1									1			Enhances the skills in Engineering Foundational Concepts
					55	CO 4	Understand magnetic properties of materials and apply them to know various mechanisms involved in magnetic memory devices and transformers.			1									1			
					56	CO 5	Understand various properties of materials and apply the knowledge to execute the related experiments to get hands on experience and also to develop some inter disciplinary projects.			1									1			
14	15 CY 1001	Engineering Chemistry	2-2--2	4	57	CO-1	Predict potential complications from combining various chemicals or metals in an engineering setting.			1									1		Retained from previous curriculum	Enhances the skills in Engineering Foundational Concepts
					58	CO-2	Discuss fundamental aspects of electrochemistry and materials science relevant to corrosion phenomena.			1									1			
					59	CO-3	Examine water quality and select appropriate purification technique for intended problem.			1									1			
					60	CO-4	Apply phase rule, polymers, conducting polymers and nano chemistry to engineering processes.		1										1			
					61	CO-5	An ability to analyze & generate experimental skills.		1										1			
15	15 BT 1001	Biology for Engineers	2-0-0	2	62	CO-1	Acquire the Knowledge of basic biology								1		1		1		Retained from previous curriculum	Enhances the skills in Engineering Foundational Concepts
					63	CO-2	Acquire the Knowledge of Human Biological Systems								1		1		1			
					64	CO-3	Acquire Knowledge on Microorganisms and Biosensors								1		1		1			
16					65	CO-1	Understand the basic principles of engineering design								1				1		Retained from previous curriculum	

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Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
	15 GN 1004	Introduction to Engineering	2-0-2	3	66	CO-2	Understand the aspects of critical thinking and problem solving in engineering								2				2			Enhances to know the foundations of Engineering and helps to achieve employability
					67	CO-3	Apply to knowledge of critical thinking to frame real-world problems and provide basic solution approach to such problems from engineering perspective								2				2			
					68	CO-4	Understand and analyze the possible career options in Engineering and develop strategic plan, career targets and mechanism to achieve the same.						3						3			
17	15 ME 1002	Engineering Graphics	0-0-6	3	69	CO-1	Draft orthographic Projections, Isometric views ,projection of planes, Manually and prepare Models in workshop by using drawings.											2	2		Retained from previous curriculum	Enhances the foundational engineering skills
					70	CO-2	Draftorhtographic projections ,isometric views , projection of											2	2			
					71														2			
					72	CO-3	Draft Development of surfaces of solid and sections of solid Manually											2	2			
					73	CO-4	Practicing house wiring through Auto Cad											2	2			
					74	CO-5	Develop 2D & 3D components using Auto Cad Software		2										2			
18					75	CO-1	Understand and apply the fundamentals of a measurement system, characteristics, and metrology using simulation and experimentation tools.	2	2										2		Retained from previous curriculum	
					76	CO-2	Understand various electrical & computer parameters, and apply different measuring techniques on various electrical parameters using simulation and experimentation tools.	2	2										2			

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Sno	Course Code	Course Title	L-T-P	Credits	S NO	NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
	15 GN 1003	Measurements	0-0-4	2	77	CO-3	Understand electronic & electro-physiological parameters, and apply measuring techniques on electronic parameters using simulation and experimentation tools.	2	2										2			Enhances the foundational engineering skills
					78	CO-4	Understand and apply different measuring techniques on civil and mechanical parameters using simulation and experimentation tools.	2	2										2			
					79	CO-5	Apply the theoretical concepts to measure different parameters		2										2			
19	15 EC 2002	Signal Analysis	2-2--2	4	80	CO 1	Demonstrate signals and their Spectra	2	2										2		Course Removed	Enhances the Common Engineering Skills
					81	CO 2	Analyze discrete time systems	2	2										2			
					82	CO 3	Design filters to cater signal analysis needs											2	2			
					83	CO 4	Analyze non stationary signals in time											2	2			
					84	CO 5	Analyze non stationary signals in frequency domains											2	2			
20	15GN2205	Coding Skills-1	0-0-4	2	85	CO1	Apply the concepts of basic programming to solve the basic problems, pattern based problems	3				3								3	Retained from previous curriculum	Enhances the coding skill
					86	CO2	Build solutions for problems on Numbers and array based problems , functions,recursion	3				3								3		
					87	CO-3	Solve problems solutions for character/string based problems and pointers	3				3								3		
					88	CO-4	Build solutions to programs on Data structures concepts	3				3								3		
21					89	CO1	Understand measures of efficiency to algorithms, different sorting techniques and the operations of linked lists and various height balanced trees.	1				1							3		Retained from previous curriculum	
					90	CO2	Analyze algorithms and operations of non-linear data structure Graphs.	2				2							3			

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	15CS2104	Advanced Data Structures	2-2--2	4	91	CO3	Demonstrate the ability to organize and represent complex data using Advanced Tree Data Structures for a common practical application.	2				2							3			Enhances the coding skills
					92	CO4	Analyze different hashing techniques and various heap organizations	2											3			
					93	CO5	The student will be able to understand and execute lab experiments and develop a small project along with his/her team members.	3				3							3			
22	15CS1001	C Programming & Data Structures	2-4--2	5	94	CO1	Illustrate how problems are solved using computers and programming.	2											3		Retained from previous curriculum	Enhances the oppurtunity in employment
					95	CO2	Interpret & Illustrate user defined C functions anddifferent operations on list of data.	2											3			
					96	CO3	Implement Linear Data Structures and compare them					2							3			
					97	CO4	Implement Linear Data Structures and compare them					2							3			
					98	CO5	Apply the knowledge obtained by the course to solve real world problems.											2	3			
23	15 CS 2208	Computer Networks	2-2--2	4	99	CO1	Understand OSI and TCP/IP Models and basics of physical layer and their issues	1											2		Retained from previous curriculum	Basic principles of networking is taught for skill development
					100	CO2	Demonstrate Data Link layer issues and medium access control sub layers concepts					2							2			
					101	CO3	Analyze and implement the algorithms of network and transport layers and concerned services					2							2			
					102	CO4	Evaluate and execute the concepts of TCP ,UDP and the application layer conceptions					3							2			

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					103	CO5	Demonstrate the basic concepts of protocols and their design including client/server models, connection oriented and connection-less models					2							2			
24	15CS2007	Data Base System	2-2--2	4	104	CO1	Explain the advantages of DBMS, its Characteristics, Concepts and ER-Model.	1											3		Retained from previous curriculum	coding and data retrival used in application development is taught for employability and skill development
					105	CO2	Demonstrate Relational Database using SQL detailing the role of Relational Algebra and Relational Calculus	2											3			
					106	CO3	Illustrate the normal forms of Relational DBMS detailing the process of normalization.					2							3			
					107	CO4	Examine Transaction Management, Concurrency Control, File Organizations, Indexing, and Storing data.					2							3			
					108	CO5	Create and Access Data Base for given Applications		2										3			
25	15 CS 2003	Discrete Mathematics	2-2--2	4	109	CO1	Apply the concept of sets, relations, functions and discrete structures , Count discrete event occurrences												2		Retained from previous curriculum	Skill Development by gaining knowledge regarding the foundational mathematics
					110	CO2	Apply Propositional logic and First order logic to solve	2											2			
					111	CO3	Formulate and solve recurrence relations, Apply algebraic structures and lattices.												2			
					112	CO4	To identify the basic properties of graphs and trees and model simple applications												2			
					113	CO5	Relate practical examples to the appropriate set, function												2			
26					114	CO1	The student will be able to understand Basic Concepts of OOP, apply the concepts of classes and objects through Java Language.	2				2							3		Retained from previous curriculum	

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	15CS 2002	Object Oriented Programming	2-2--2	4	115	CO2	The student will be able to apply the concepts of constructors, Overloading, parameter passing, access control, Inheritance.	2				2							3			Enhances the oppurtunity to achieve employment
					116	CO3	The student will be able to apply Packages, Interfaces, Exception Handling.	2				2							3			
					117	CO4	The student will be able to apply I/O Streams and understand Basic Concepts of Multi –Threading	2				2							3			
					118	CO5	Students will be able to develop programs and projects in java.	2				2							3			
27	15CS2206	Operating Systems	2-2--2	4	119	CO1	Understand the basic concepts of operating system, OS structure and process concepts.	1				1							2		Retained from previous curriculum	Basic management of computer system taught for skill development
					120	CO2	Apply the concepts Process Scheduling algorithms and Process Synchronization Problems.	2				2							2			
					121	CO3	Solve the concept of the Deadlock, Memory Management and Virtual Memory Concepts.	2				2							2			
					122	CO4	Demonstrate file system interface, structure, file allocation methods, free space management and threads.	1				1							2			
					123	CO5	Create and develop a project along with his/her team members.					3							2			
28	15GN3205	Coding Skills-2	0-0-4	2	124	CO1	Apply the concepts of basic programming to solve the basic problems, pattern based problems	3				3								3	Introduced newly	Enhances the coding skill
					125	CO2	Build solutions for problems on Numbers and array based problems , functions,recursion	3				3								3		
					126	CO3	Solve problems solutions for character/string based problems and pointers	3				3								3		
					127	CO4	Build solutions to programs on Data structures concepts	3				3								3		

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29	15 CS 2105	Software Engineering	2-2--2	4	128	CO1	Comprehend software development life cycle and prepare SRS document					2							3		Retained from previous curriculum	Priniciples of software development taught for the better employability
					129	CO2	Apply software design and development techniques, understand software process improvement					2							3			
					130	CO3	Identify verification and validation methods in a software engineering project											2	3			
					131	CO4	Analyze and Apply Human Computer techniques for a case study					2							3			
					132	CO5	Apply UML Specification and anaylsis techniques to software designs and programs											2	3			
30	15 CS 3109	Theory of Computation	2-2--2	4	133	CO1	Understand formal machines, languages and computations	2											2		Retained from previous curriculum	System design concepts are taught for skill dvelopment
					134	CO2	Design finite state machines for acceptance of strings and context free grammars for formal languages	2											2			
					135	CO3	Develop pushdown automata accepting strings					2							2			
					136	CO4	Distinguish between decidability and undecidability					2							2			
					137	CO5	Design Turing machine					2							2			
31	15 CS 3110	Algorithm Design and Analysis	2-2--2	4	138	CO1	Analyze time and space complexity					2							3		Retained from previous curriculum	Knowledge on Fine tuning and design of algorithms for the requirement which enhances the skills in basic concepts of computer science
					139	CO2	Identify algorithm design methodology to solve problems.					2							3			
					140	CO3	Design algorithms for network flows and string processing					2							3			
					141	CO4	Distinguish between P and NP classes of problems and solve complex problems											3	3			
					142	CO5	Apply algorithm design techniques to solve any real world problems											3	3			

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32	15 CS 3112	Information Assurance & Security	2-2--2	4	143	CO1	Perform packet sniffing and analyze packets for vulnerabilities	2											2		Retained from previous curriculum	Skill Development in leaning various Security techniques and tools
					144	CO2	Identify system vulnerabilities of communication Protocols	2											2			
					145	CO3	Design firewalls , Authentication Protocols					2							2			
					146	CO4	Analyze encryption algorithms					2							2			
					147	CO5	Developing an application using public key encryption techniques which supports digital signing concepts					2							2			
33	15CS3111	Artificial Intelligence	2-2--2	4	148	CO1	Students will able to apply PROLOG programming for the AI concepts					2							3		Retained from previous curriculum	Fundamental principles are taught of the upcoming technologies for Skill Development
					149	CO2	Students will be able to relate methods for encoding Knowledge In computer systems	1											3			
					150	CO3	Students will be able to Interpret the Problems and search related to AI	1											3			
					151	CO4	Students will be able to infer Slot-and-filler structures and architecture of neural networks as connectionist models	1											3			
					152	CO5	Demonstrate the basic concepts of artificial intelligence in the Laboratory					2							3			
34	15 CS 4171	Machine Learning	3-0-0	3	153	CO1	Explain the differences among the styles of learning:supervised,reinforcement, unsupervised, inductive and deductive	2												2	Retained from previous curriculum	Enhances the understanding in upcoming technologies and benefits the student to improve the employbility
					154	CO2	Comprehend probabilistic methods for learning					2								2		
					155	CO3	Understand Multivariate regression and Classification	2												2		
					156	CO4	Understand rule based knowledge and Analyze clustering	2												2		

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35	15 CS 3113	Platform based development	2-2--2	4	157	CO1	Understand current and evolving Web languages for integrating media and user interaction in both front end and back end elements of a Web site					2							3		Retained from previous curriculum	All modern webbased development is taught for improving employability skills
					158	CO2	Understand Java-Script functions. and CSS					2							3			
					159	CO3	Understand game and industrial platforms					2							3			
					160	CO4	Understand,analyze and build dynamic and interactive web sites,Design and implementation of modern SOA and SOA-specific methodologics,technologies and standards											3	3			
					161	CO5	Install and manage server software and Mobile programming tools.											3	3			
36	15 CS 3214	Languages & Compilers	2-2--2	4	162	CO1	Analyzing the design issues involved in various constructs of programming languages, Design top-down and bottom-up parsers					2							2		Retained from previous curriculum	Useful for the skill development, good to design new languages
					163	CO2	Develop syntax directed translation schemes, Design and implement LR parser					2							2			
					164	CO3	Use formal grammars to specify the syntax of Languages					2							2			
					165	CO4	Analyzing the methods and tools to define syntax and semantics of a languages											2	2			
					166	CO5	Analyzing the methods and tools to define syntax and semantics of a languages											2	2			
37					167	CO1	Distinguish centralized computing and distributed computing detailing formal model of a distributed message passing system and the complexity measures of message passing between systems presenting important abstractions for designing distributed programs	2				2							3		Retained from previous curriculum	

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	15 CS 3215	Parallel &Distributed Computing	2-2--2	4	168	CO2	Identify the leader by coordinating among processors, elaborating formal models for shared memory system and memory requirement for solving mutual exclusion problem.	2				2							3			Basic principles of distributed software over networking environment is taught for skill dvelopment
					169	CO3	Utilize DSM model for inter process communication showing relationship between various types of shared objects and Identify clock synchronization problem applying tight bounds to synchronize clocks.	2				2							3			
					170	CO4	Examine the process of realizing reliable fault tolerance in distributed systemreflecting the specific type of faulty behavior and illustrate simulation that makes Byzantine failures appear to be crash failures	2				2							3			
					171	CO5	Experiment with laboratory programs and develop a small project along with his/her team members.	2				2							3			
38	15 CS 3251	TCP/IP Protocol Suite	3-0-0	3	172	CO1	Design and analyze the existing routing protocols using NS	2												2	Retained from previous curriculum	Internet kind of protocos are taught for skill development
					173	CO2	Identify solution for each functionality at each layer	2												2		
					174	CO3	Identify solution for each functionality at each layer	2												2		
					175	CO4	Case Study: Simulation Of Network Protocols Using NS												2	2		
39	15 CS 4159	Network Architecture and Design	3-0-0	3	176	CO1	Discuss methodologies for analyzing networks of	2												3	Retained from previous curriculum	Installations of multiple networks and designing is taught for skill development
					177	CO2	Demonstrate knowledge of recent research in the area and exhibit technical writing and presentation skills.					2								3		
					178	CO3	Explain the key concepts and algorithms in complex network analysis.	2												3		

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					179	CO4	Apply a range of techniques for characterizing network structure.					2								3		
40	15 CS 4160	Network Security	3-0-0	3	180	CO1	Analysis and design of algorithms to implement secure protocols.		2											2	Retained from previous curriculum	Seurity issued related to networked environmnet is practiced for skill dvelopment and employability
					181	CO2	Discuss security properties and limitations of wired networks											2		2		
					182	CO3	Describe the architecture for public and private key cryptography and how public key infrastructure (PKI) supports network security		2											2		
					183	CO4	Describe common types of vulnerabilities and attacks in web applications, and defenses against them											2		2		
41	15 CS 4161	Wireless communications and Networks	3-0-0	3	184	CO1	Understand algorithm/protocols. environments and communication systems in mobile computing.	2												2	Retained from previous curriculum	Principles of wireless systems are taught for skill
					185	CO2	Evaluate the efficiency of modulation schemes and multiple access technquies.											2		2		
					186	CO3	Analyze the performance of MAC,TCP protocols used for wired network and wireless networks.											2		2		
					187	CO4	Design and analyze the existing routing protocols for multi-hop wireless networks.	2												2		
42	15 CS 4162	Computer Forensics	3-0-0	3	188	CO1	Discuss the security issues network layer and transport Layer	2												2	Retained from previous curriculum	Principles of daigital forencics are taught for skill development
					189	CO2	Apply security principles in the application layer			2										2		
					190	CO3	Apply their theoretical and practical knowledge in forensic computing, into the future and emerging technology			2										2		
					191	CO4	Use forensics tools ,Analyze and validate forensics data	2												2		
43					192	CO1	Determine the software measurement attributes and process metrics												2	2	Retained from previous curriculum	

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	15 CS 3252	Software Metrics and Measurements	3-0-0	3	193	CO2	Plan and evaluate metrics for object oreiented software projects	2												2		Software quality and effort estimation techniques are taught for skill development
					194	CO3	Understand project monitoring and control Techniques											2		2		
					195	CO4	Describe several process metrics for assessing and controlling a project. Assess the quality of a proposed metric.	2												2		
44	15 CS 4163	Software Verification and Validation	3-0-0	3	196	CO1	Design test cases suitable for a software development for different domains.	2												2	Retained from previous curriculum	
					197	CO2	Identify suitable tests to be carried out. Conduct an inspection or review of software source code for a small or medium sized software project.			2										2		Software validation and testing techniques are taught for skill development
					198	CO3	Prepare test planning based on the document using automatic testing tools.	2												2		
					199	CO4	Document test plans and test cases designed			2										2		
45	15 CS 4164	Software Architecture and Design Patterns	3-0-0	3	200	CO1	Analyze and combine design patterns to work together in software design											2		2	Retained from previous curriculum	
					201	CO2	Refactor an existing software implementation to improve some aspect of its design			2										2		Software reusability patterens are taught for skill development
					202	CO3	Discuss and select appropriate software architecture for a simple system suitable for a given scenario											2		2		
					203	CO4	Implement the design patterns in an object oriented language.			2										2		
46					204	CO1	Understand Requirements Specification & Management, Scope Management, Project	2												2	Retained from previous curriculum	
					205	CO2	Apply Software Project Effort and Cost Estimation											2		2		Managing software projects

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	15 CS 4165	Software Project Management	3-0-0	3	206	CO3	Apply the basic principles of risk management, Time Management, and Configuration Management in a variety of simple scenarios including a security situation.											2		2		and their risks, scheduling and budgeting are taught for skill development
					207	CO4	Apply the basic principles of risk management,	2												2		
47	15CS3287	Dynamic Web Publishing	3-0-0	3	208	CO1	To Understand and Illustrate the basic concepts of JavaScript functions and XML namespace	2												2	New course introduced	Tolerance in computing systems and handling projects are taught for skill development
					209	CO2	Describe fundamentals of API interface through JDBC					2								2		
					210	CO3	To learn the interpreter and its convertion to a servlet using JSP	2												2		
					211	CO4	To learn the aynchronous data exchange techniques using AJAX nd management of session					2								2		
48	15 CS 3253	Enterprise Storage Systems	3-0-0	3	212	CO1	Understand storage systems	2												2	Retained from previous curriculum	Data storage systems and management is taught for skill development
					213	CO2	Understand Networking Technologies	2												2		
					214	CO3	Understand object based and unfied storage	2												2		
					215	CO4	Apply security and management					2								2		
49	15 CS 4167	Parallel Algorithms	3-0-0	3	216	CO1	Understand Algorithms and sorting networks	2												2	Retained from previous curriculum	Concurrent algorithms are taught for the faster execution of program is taught for skill development
					217	CO2	Ability to design and analyze parallel algorithms					2								2		
					218	CO3	Apply graph and search algorithms on sorting networks					2								2		
					219	CO4	Understand arithmetic and randomized compuations	2												2		
50	15 CS 4168	Cloud Networking	3-0-0	3	220	CO1	Understand data center networking standards	2												2	Retained from previous curriculum	Networking concepts are linked with cloud environment
					221	CO2	Understand server virtualization , Switch Fabric Technology					2								2		usage Is taught
					222	CO3	Cloud Data Center Networking Topologies	2												2		for skill

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					223	CO4	Understand software defined networking					2								2		development
51	15 CS 4169	Cloud Computing	3-0-0	3	224	CO1	Identify the appropriate cloud services for a given Application					2								2	Retained from previous curriculum	
					225	CO2	Analyze Cloud infrastructure including Google Cloud and Amazon Cloud.			2										2		Basic fundamentals of cloud are taught for skill development
					226	CO3	Analyze authentication, confidentiality and privacy issues in Cloud computing environment.			2										2		
					227	CO4	Determine financial and technological implications for selecting cloud computing platforms					2								2		
52	15 CS 4170	High Performance Computing	3-0-0	3	228	CO1	Analyze the performance of GPU memory hierarchy and MPI programming	2												2	Retained from previous curriculum	
					229	CO2	Develop parallel programs using OpenCL library and understand FPGA-Based Supercomputer					2								2		Latest libraries of parellel lgorithms are taught for skill development
					230	CO3	Develop mixed mode programs for Multicore, GPU and cluster oprtimization systems					2								2		
					231	CO4	Generate parallel programs for matrix, graph and sorting problems using Cuda, OpenMP library	2												2		
53	15 CS 3254	Soft Computing	3-0-0	3	232	CO1	Understand the working of neural networks to store and process information	2												2	Retained from previous curriculum	
					233	CO2	Build optimal classifiers using genetic algorithms					2								2		Genetic algorithms for problem solving is taught for skill development
					234	CO3	Apply ANN, RNN models and various soft computing frame works.					2								2		
					235	CO4	Understand Fuzzy Logic Systems and develop Fuzzy logic controllers	2												2		
54					236	CO1	Understand issues related to R Representation	2												2	Retained from previous curriculum	

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	15 CS 4183	Big Data & Optimization	3-0-0	3	237	CO2	Understand issues related to R Representation					2								2		Achieving expertise in Bigdata Concepts
					238	CO3	Apply population based search and develop query processing strategies					2								2		
					239	CO4	Understand applications like Travelling Salesman Problem	2												2		
55	15 CS 4172	Natural Language Processing	3-0-0	3	240	CO1	Analyze the natural language text.	2												2	Retained from previous curriculum	Principles of natural language principles are introduced for skill develoment
					241	CO2	Identify the challenges of representing meaning and Generate natural language.					2								2		
					242	CO3	Identify the challenges of representing meaning and Generate natural language.	2												2		
					243	CO4	Simulate, apply, or implement classic and stochastic algorithms for parsing natural language.					2								2		
56	15 CS 4173	Perception and Computer Vision	3-0-0	3	244	CO1	Understand Image representation and modeling	2												1	Retained from previous curriculum	Computer graphics concepts at advanced level are taught for enhances the skills.
					245	CO2	Apply Image transformation methods			2										1		
					246	CO3	Implement image processing algorithms	2												1		
					247	CO4	Design of face detection and recognition algorithms			2										1		
57	15 CS 4174	Multi Agent Systems	3-0-0	3	248	CO1	Characterize and contrast the standard agent architectures.	2												1	Retained from previous curriculum	Agent based software systems are taught for the better management of software for enhancing the skills
					249	CO2	Create logical agents to do inference using first order logic.			2										1		
					250	CO3	Demonstrate using appropriate examples how multi-agent systems support agent interaction	2												1		
					251	CO4	Describe the primary paradigms used by learning agents			2										1		
58					252	CO1	Contrast forward and backward rendering	2												3	Retained from previous curriculum	

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Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
	15 CS 3255	2D/3D Graphics	3-0-0	3	253	CO2	Construct CSG models from simple primitives,such as cubes and quadric surfaces.	2												3		Computer graphics concepts at advanced level are taught for skill development
					254	CO3	Analyze affine and vector geometry	2												3		
					255	CO4	Understand Bezier and B-Spline Curves	2												3		
59	15 CS 4175	Multimedia Technologies	3-0-0	3	256	CO1	Describe the media communications and supporting devices commonly associated with multimedia information and systems	2												3	Retained from previous curriculum	Computer graphics concepts of multi media are taught for skill development
					257	CO2	Demonstrate the use of content-based information analysis in a multimedia information system.	2												3		
					258	CO3	Critique multimedia presentations in terms of their appropriate use of audio, video, graphics, color,and other information presentation concepts with Quality of Service In Network Multimedia Systems	2												3		
					259	CO4	Implement a multimedia application using an authoring system and Middleware for Multimedia									2				3		
60	15 CS 4176	Game Graphics Programming	3-0-0	3	260	CO1	Discuss the concepts of Game design and development.			2										3	Retained from previous curriculum	Computer graphics concepts like game design are taught for skill development
					261	CO2	Design the processes, and use mechanics for game development. Create interactive Games.			2										3		
					262	CO3	Explain the Core architectures of Game Programming.	2												3		
					263	CO4	Use Game programming platforms, frame works and engines	2												3		
61					264	CO1	Understand interpolation & Describe several approaches to using a computer as a means for interacting with and processing data	2												3	Retained from previous curriculum	Computer graphics concepts

Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
	15 CS 4177	Animation & Visualization	3-0-0	3	265	CO2	Explain kinematic linkages and motion capture	2												3		at advanced level are taught for skill development
					266	CO3	Understand modeling and animating human figures	2												3		
					267	CO4	Apply facial animation, behavioral animation										2			3		
62	15 CS 4178	Cross Platform Mobile Development	3-0-0	3	268	CO1	Design and implement a mobile application using OPENGL ES2.0,Phonegap HTML 5 and JS	2												3	Retained from previous curriculum	Portable devices based application development is taghut for skill development
					269	CO2	Design and develop mobile apps, using Android as development platform, with key focus on user			2										3		
					270	CO3	Discuss the constraints that mobile platforms put on developers.	2												3		
					271	CO4	Discuss the performance vs. power tradeoff			2										3		
63	15 CS 3256	Modeling and Simulation for Sciences	3-0-0	3	272	CO1	Understand System dynamics models with interactions: competition, predator-prey models, spread of disease models	2												2	Retained from previous curriculum	Different modeling and simulation techniques are practised for the skill development
					273	CO2	Apply Cellular automaton diffusion simulations: spreading of fire, formation of biofilms					2								2		
					274	CO3	Understand Monte Carlo simulations	2												2		
					275	CO4	Determine system dynamics projects throughout,such as modeling falling and skydiving, enzyme kinetics, the carbon cycle, economics and fishing					2								2		
64	15 CS 4179	Scientific Computing and Visualization	3-0-0	3	276	CO1	Determine the convergence region for a finite difference method and Solve PDE.	2												2	Retained from previous curriculum	Principles of compting techniques and algorithms are taught for skill development
					277	CO2	Solve nonlinear differential equations by numerical methods.					2								2		
					278	CO3	To use iterative methods to solve systems of non-linear equations	2												2		
					279	CO4	Understand volume Visualization, Optimization and Minimum Principles	2												2		

Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
65	15 CS 4180	Parallel Computing	3-0-0	3	280	CO1	Describe the levels of parallelism including task, data, and event parallelism	2												2	Retained from previous curriculum	Concurrent algorithms are taught for the better utilization of CPU is taught for skill development
					281	CO2	Understand Distributed Shared Memory Systems And Programming	2												2		
					282	CO3	Apply standard numerical algorithms to solve ODEs and PDEs. Use computing systems to solve systems of equations					2								2		
					283	CO4	Understand Mutex-Free Synchronization and The Transactional Memory Approach	2												2		
66	15 CS 4181	Optimization and Game Theory	3-0-0	3	284	CO1	Determine the optimum solution to constrained and unconstrained.	2												2	Retained from previous curriculum	Principles of optimization techniques for game development inorder to enhances the skills.
					285	CO2	Determine average queue length and waiting times of queuing models.	2												2		
					286	CO3	Determine optimum solution to transportation problem Using PERT/CPM	2												2		
					287	CO4	Determine the integer solutions to Linear Programming Problems.										2			2		
67	15 CS 4182	Discrete Event Simulation	3-0-0	3	288	CO1	Discrete-Event Simulation Framework for modeling and simulation to a range of problem areas	2												2	Retained from previous curriculum	New Techniques are introduced to for the design of softwrae systemd for skill development
					289	CO2	Understand Activity-Based Modeling and Simulation	2												2		
					290	CO3	Understand Activity-Based Modeling and Simulation	2												2		
					291	CO4	Understand event graph modeling for simulation												2	2		
68	15 CS 4183	Big Data & Optimization	3-0-0	3	292	CO1	Understand issues related to R Representation	2												2	Retained from previous curriculum	Efficiency achievement in big data applications is taught for skill development
					293	CO2	Understand issues related to R Representation					2								2		
					294	CO3	Apply population based search and develop query processing strategies					2								2		

Dr. G. Krishna Mohan
Alternate HOD
Computer Science & Engineering
Koneru Lakshmaiah Education Found
(Deemed to be University)
Green Fields, VADDESWARAM-522

Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
					295	CO4	Understand applications like Travelling Salesman Problem	2												2		
69	15 CS 4185	Information Visualization & Graph Analytics	3-0-0	3	300	CO1	Understand Fuzzy Logic Systems and develop Fuzzy logic controllers	2												2	Retained from previous curriculum	Graph based analysis is taught for skill enhancement and to use at differnet application araes of computer science
					301	CO2	Apply Extracting Salient Structures for data cleansing					2								2		
					302	CO3	Analyze and evaluate Stats and Layout	2												2		
					303	CO4	Analyze Point-and-Click: Graph Tools like NodeXL, Gephi, Cytoscape					2								2		
70	15 CS 4186	Data Science & Big Data Analytics	3-0-0	3	304	CO1	Understand big data challenges in different domains including social media, transportation, inance and medicine	2												3	Retained from previous curriculum	Latest concepts like big data and its analysis is taught for employability and skill development
					305	CO2	Analyze scalability and performance of relational model, SQL and emergent systems. Apply the statistical analysis methods.											2		3		
					306	CO3	Comprehend machine learning and algorithms for data analytics.	2												3		
					307	CO4	Analyze Map-Reduce programming model for better optimization											2		3		
71	15 CS 3257	Data Warehousing and Mining	3-0-0	3	308	CO1	Student should be able to Understand the necessity of data preprocessing in construction of data warehouse.	1												3	Retained from previous curriculum	Working on tools of data warehousing increses the chances of employability
					309	CO2	Student should be able to Analyze multidimensional data using OLAP tools to facilitate effective data mining.	2	2											3		
					310	CO3	Student should be able to Apply the concepts of data analysis and clustering to postulate accurate classification model for a given problem.		2	2										3		

Dr. G. Krishna Mohan
Associate HOD
Computer Science & Engineering
Koneru Lakshmaiah Education Foundation
Deemed to be University

Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
					311	CO4	Student should be able to Recommend a methodology formining complex data types and detection of anomaly for the given Application.	3		3										3		
72	15 CS 30A6	FUNDAMENTALS OF DBMS	3-0-0	3	312	CO1	Understand the fundamentals of database management systems including data models, database architectures, and database manipulations and be able to model ER-diagrams		2											2	Retained from previous curriculum	Concepts of data engineering is taught for improving employability skills
					313	CO2	Understand the theories and techniques in developing database applications and be able to write queries, functions and procedures with help of SQL					2								2		
					314	CO3	Understand the theories and techniques in developing database applications and be able to write queries, functions and procedures with help of SQL		2											2		
73	15 CS 30A7	FUNDAMENTALS OF SOFTWARE ENGINEERING	3-0-0	3	315	CO1	Comprehend software development life cycle and prepare SRS document		2											2	Retained from previous curriculum	Concepts of software engineering is taught for enhancing employability
					316	CO2	Apply software design and development techniques, understand software process improvement					2								2		
					317	CO3	Identify verification and validation methods in a software engineering project		2											2		
74	15 CS 30A8	FUNDAMENTALS OF INFORMATION TECHNOLOGY	3-0-0	3	318	CO1	Understand the architectural design of a computerand various basic concepts of operating systems and programming fundamentals		2											2	Retained from previous curriculum	Basic Concepts which helps in Software project management is taught for other Branch students inorder to enhance the
					319	CO2	Analyze various software development methodologies and gain capability to design databases.					2								2		

Dr. [illegible] Alternate HOD
Computer Science & Engineering
Kempegowda Institute of Technology
(Deemed to be University)
[illegible] VADDESWARAM-562

Sno	Course Code	Course Title	L-T-P	Credits	S NO	O NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PS O 1	PS O 2	Type	Rationale
					320	CO3	Analyze various software development methodologiesand gain capability to design databases.					2								2		employability skills
75	15 IE 3250	Term Paper	0-0-4	2	321	CO	To enhance Practical exposure towards solving complex engineering problems inorder to achieve Research Exposure					2					2			2	Retained from previous curriculum	Enhances Practical exposure towards solving complex engineering problems inorder to achieve employability
76	15 IE 4048	Practice School	0-0-16	8	322	CO	To enhance Practical exposure towards solving complex engineering problems inorder to achieve Industrial Exposure				2	3					2			2	Retained from previous curriculum	Enhances Practical exposure towards solving complex engineering problems inorder to achieve employability
77	15 IE 4049	Minor Project	0-0-4	2	323	CO	To enhance Practical exposure towards solving complex engineering problems inorder to achieve Research and Industrial Exposure					2								2	Retained from previous curriculum	Enhances Practical exposure towards solving complex engineering problems inorder to achieve employability
78	15 IE 4050	Major Project	0-0-16	8	324	CO	To enhance Practical exposure towards solving complex engineering problems inorder to achieve Research and Industry Exposure				3	3								3	Retained from previous curriculum	Enhances Practical exposure towards solving complex engineering problems inorder to achieve employability
79	FL	Foreign Language			325	CO	To improve Communication skills in Other Languages												3	3	Retained from previous curriculum	Enhances effective communication skills inorder to achieve employability

Sno	Course Code	Course Title	L-T-P	Credits	S NO	O NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
80	ME	Management Elective	3-0-0	3	326	CO	To enhance the Management Skills and to learn Professional Ethics								2					2	Retained from previous curriculum	Understand professional and ethical responsibility inorder to achieve Management Skills
81	15CS512	Computational Complexity	3-0-2	4	314	CO1	Advances in Computing deals with the theoretical foundations of information and computation and their implementation and application in computer systems	1						2							Retained from previous curriculum	Useful for the skill development, good to design new languages
					315	CO2	It has also provided contributors with a medium in which they can explore their subjects in greater depth and breadth		2					2								
					316	CO3	That continue to be of significant, lasting value in this rapidly expanding field.		2					2								
					317	CO4	Software Environments for Distributed systems and clouds: Parallel and Distributed Programming Models		2					2								
82	15CS513	Machine Inteligence	3-0-2	4	318	CO1	Explain the differences among the styles of learning:supervised,reinforcement, unsupervised, inductive and deductive	2												2	Retained from previous curriculum	Enhances the understanding in upcoming technologies and benefits the student to improve the employbility
					319	CO2	Comprehend probabilistic methods for learning					2								2		
					320	CO3	Understand Multivariate regression and Classification	2												2		
					321	CO4	Understand rule based knowledge and Analyze clustering	2												2		
83					322	CO1	Evaluate mathematical expressions by using different types of operations on numbers.	1						1							Retained from previous curriculum	To frame a mathematical
					323	CO2	Simplify expressions and solve equations & inequations.					2		1								

Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
	15CS514	Optimization Techniques	3-0-2	4	324	CO3	Apply different types of arithmetic expressions to solve given problems.							1								mathematical model to Research problems
					325	CO4	Apply methods to find areas , volumes and use graphs to reduce non-linear to linear forms.						2	1									
84	15CS515	Device Management	3-0-2	4	326	CO1	Understand the functionality and design the CPU functional units - control unit, registers, the arithmetic and logic unit, the instruction execution unit, and the interconnections among these components.			2								2	2		Retained from previous curriculum	Useful for the skill development, good to design new languages
					327	CO2	Understand, analyze and design main, cache and virtual memory organizations.			2								2	2			
					328	CO3	Understand, analyze and design different types of I/O transfer techniques			2								2	2			
					329	CO4	Understand the design issues of RISC and CISC CPUs and the design issues of pipeline architectures			2								2	2			
85	15CS516	Formal Methods	3-0-2	4	330	CO1	Analyzing the design issues involved in various constructs of programming languages, Design top-down and bottom-up parsers					2							2		Retained from previous curriculum	Useful for the skill development, good to design new languages
					331	CO2	Develop syntax directed translation schemes, Design and Implement LR parser					2							2			
					332	CO3	Use formal grammars to specify the syntax of Languages					2							2			
					333	CO4	Analyzing the methods and tools to define syntax and semantics of a languages											2	2			
86		Algorithm			334	CO1	Examine the space and time complexities of basic algorithms													2	Retained from previous curriculum	
					335	CO2	Demonstrate Greedy and Dynamic programming methodology for solving optimization problems		1											2		

Dr. G. Krishna Mohan
Alternate HOD
Computer Science & Engineering
Vignan's Foundation for Science, Technology & Research
(Deemed to be University)

Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
	13OE456	Design and Analysis	3-0-2	4	336	CO3	Apply back tracking and branch and bound methodology for searching same state space trees					2							2			algorithms for the requirement for skill development
					337	CO4	identify the purpose of NP-hard, NP-complete hard graph problems and illustrate PRAM algorithms	1											2			
87	13OE455	Principles of Operting Systems	3-0-2	4	338	CO1	Understand the basic concepts of operating system, OS structure and process concepts.	1				1							2		Retained from previous curriculum	Basic management of computer system taught for skill dvelopment
					339	CO2	Apply the concepts Process Scheduling algorithms and Process Synchronization Problems.	2				2							2			
					340	CO3	Solve the concept of the Deadlock, Memory Management and Virtual Memory Concepts.	2				2							2			
					341	CO4	Demonstrate file system interface, structure, file allocation methods, free space management and threads.	1				1							2			
88	13OE457	Theory of Computations	3-0-2	4	342	CO1	Understand the overall compiler architecture and design of Lexical Analyzer					2							2		Retained from previous curriculum	Enhances Practical exposure towards solving complex engineering problems inorder to achieve employability
					343	CO2	Construct the parser using the Yacc tool					2							2			
					344	CO3	Analyze Syntax directed definition and its translations schemes, intermediate code					2							2			
					345	CO4	Apply the code optimization and generation techniques in the development of a compiler.												2	2		
89	13OE458	Parallel Processing	3-0-2	4	346	CO1	Understand Algorithms and sorting networks	1	2				3								Retained from previous curriculum	This course to helps in getting the knowledge of concurrent algorithms and for skill development
					347	CO2	Ability to design and analyze parallel algorithms		2				3									
					348	CO3	Apply graph and search algorithms on sorting networks	1					3									
					349	CO4	Understand arithmetic and randomized compuations	2	2				3									

Alternate HOD
Computer Science & Engineering
Education Foundation

Sno	Course Code	Course Title	L-T-P	Credits	S.NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
90	13OE459	Data Analytics	3-0-2	4	350	CO1	Acquire the ability to identify potential sources of data and distinguish between quantitative and qualitative data	1						2							Retained from previous curriculum	This course helps in data analysis for cloud environment
					351	CO2	Learn to identify and describe a variety of analysis tools that will assist in processing data.		2					2								
					352	CO3	Demonstrate basic data analysis techniques and show how this analysis can contribute to a business' future growth	2						2								
					353	CO4	Learn how to effectively communicate the results of your analysis.		2					2								

HOD-CSE

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Department of Computer Science and Engineering

Alumni Feedback on Curriculum

Academic Year (2016-17) Sem :

1. Network Theory and Signal analysis can be removed.
2. Tools for Simulation and modeling can be used.
3. Thermodynamics course can be removed.
4. Hectic syllabus structure for compiler design makes the subject tough for the students.

HOD-CSE

Dr. G. Krishna Mohan
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K L University

u/s 3 of UGC Act, 1956
Koneru Lakshmaiah Education Foundation

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Date:13-12-2016

Department Academic Committee Meeting

The following Agenda Items are discussed and the resolutions passed are marked against them.

The points discussed in the meeting are:

1. Dr. V.Srikanth, HOD- CSE department addressed the issue on which the meeting is to be conducted.
   - I. Discussion on summarizing the changes to contents, courses outcomes and Blooms taxonomy levels of B.Tech [CSE] 2015-2016 - Program curriculum & syllabus.
   - II. The members of the DAC did not recommend the syllabus change of course (15CS3216) Graphics and visualization and change of the title to the course (15CS4175) Multimedia Technologies.
   - III. DAC recommended the changes to only courses outcomes and Blooms taxonomy levels of B.Tech [CSE] 2015-2016 – Program Curriculum & Syllabus . Annexure I.
   - IV. To discuss and revise B.Tech(CSE) curriculum and Syllabus of 2016-2017 regulations in R16 Annexure(B.Tech)-I.

All programs for 2016-17 has been framed to be in relevance to APIIC, Human Resource Development Policy, Govt. of India, National Skill Development Corporation, Govt. of India, Confederation of Indian Industries, ABET, NBA norms, O*NET and AICTE statutory norms.
Thus framed curriculum has been developed through framing of Program Educational Objectives (PEO's) which are mapped to the university Vision and Mission, which are there by disseminated into Student Outcomes (SO's) which thereby have been developed into relevant Course Outcomes (CO's).

The resolutions are forwarded to BOS committee, for the approval.

HOD-CSE

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Guntur District, Andhra Pradesh.

KL UNIVERSITY

DEPARTMENT OF CSE

Industry personnel feedback on the curriculum

SUMMARY REPORT - A.Y. 2016-17

S No	Date	Feedback	Industry person	Industry
1	17-09-2016	Recommended that usage of tools should be improved and to be brought into the syllabus for software engineering course	Mr. K. Srinivas	Tech Mahindra
2	20-11-2016	Informed that it would be very difficult for the student to do projects for all courses, he recommended to have one project per one semester	Mr. Bhawnesh Gandhi	Mphasis
3	27-11-2016	Informed that it is over burden if the student has to do projects for all subjects suggested to allocate projects for more relevant courses	Mrs. Kavita	CTS

HOD-CSE

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CONSOLIDATED REPORT ON FEEDBACK GIVEN BY ACADEMIC PEERS

2016-17 (SEMESTER 2)

Sno	Date	Feedback	Resource person name
1	June 2017	1. Providing wide variety of subject clusters is very much helpful to the students to master themselves in a domain of their interest. 2. Introduction of design oriented approach in operating systems subject may help the students to get insight into the implementation of various functionalities of any operating system. 3. In software engineering course it is better to introduce all the basic concepts of lifecycle so as to bring overall view of the software development process of the industry. (All the students irrespective of their elective need to study this)	Dr.M.Babu Reddy, Department of CSE, Krishna University, Krishna District.
2	June 2017	Include industry oriented subjects.	Dr.P.Radhika Prof.&Principal, Dept of CSE, Vignan Nirula Institute of Technology &Science for women, Guntur.

HOD-CSE
Dr. E.Suresh Babu

K L University

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CONSOLIDATED REPORT ON FEEDBACK GIVEN BY ACADEMIC PEERS

2016-17 (SEM 2)

	Excellent	Very Good	Good	Average	Total
Feed back(in %)	67	33	0	0	100

HOD-CSE
Dr. E.Suresh Babu

Dr. E. SURESH BABU
Head of the Department
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K L University

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CONSOLIDATED REPORT ON FEEDBACK GIVEN BY ACADEMIC PEERS

2016-17

Sno	Date	Feedback	Resource person name
1	March 2017	Existing Course Structure is Good.	Dr.Vivek S Deshpande Professor, Dept of IT, MIT Pune
2	March 2017	Existing Regulation Course Structure, Sequence of Courses are good.	Dr.G.RamaKoteshwararao Profesor Dept of IT, V.R.Sidhartha Colg.of Engg, Kanuru, VJD.
3	March 2017	Existing Curriculum is Good.	Dr.Satyaprasad Professor of CSE, Acharya Nagarjuna University.

Dr. V. SRIKANTH
Head of the Department
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CONSOLIDATED REPORT ON FEEDBACK GIVEN BY ACADEMIC PEERS

2016-17

	Excellent	Very Good	Good	Average	Total
Feed back(in %)	0	32	68	0	100

Dr. V. SRIKANTH
Head of the Department
Computer Science and Engineering
VADDESWARAM

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Department of Computer Science and Engineering

Alumni Feedback on Curriculum

Academic Year (2016-17) Sem 2

1. Network Theory and Signal analysis can be removed.
2. Tools for Simulation and modelling can be used.
3. Thermodynamics course can be removed.

HOD-CSE
Dr. O. Krishna Mohan
Professor
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Guntur District, Andhra Pradesh.

K L University
u/s 3 of UGC Act, 1956
Koneru Lakshmaiah Education Foundation

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Date:08-06-2016

Department Academic Committee Meeting

The following Agenda Items are discussed and the resolutions passed are marked against them.

Serial Number	Agenda Item	Resolution
1.	Proposed for the Confirmation of previous minutes of meeting.	Confirmed and to discuss in BOS.
2.	To discuss feedback obtained from various stake holders.	Confirmed and to discuss in BOS.
3.	To disccuss on External Result Analysis.	Confirmed and to discuss in BOS.
4.	To discuss on the reccommendations sugested by course coordinators.	Confirmed and to discuss in BOS.
B.Tech and M.Tech Program		
5.	To discuss and revise syllabus for ADS and split it into C&DS1 and C&DS2 of B.Tech(CSE)	Confirmed. To comply with the OBE for B.Tech CSE and on the external result analysis, and course coordinator recommendations, the course syllabus is recommended for revision.
6.	To discuss and revise the syllabus for simulation and modelling of B.Tech(CSE)	Confirmed. To comply with the recommendations of stake holders and Prerequisite course coordinator.
7.	To discuss and revise the syllabus of B.Tech(CSE) 2016-2017 regulation in R16 Annexure(B.Tech)-I	Confirmed and to be discussed in BOS.
8.	To discuss and specify new syllabus for IOT of M.Tech	Confirmed.

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All programs for 2016-17 has been framed to be in relevance to APIIC, Human Resource Development Policy, Govt. of India, National Skill Development Corporation, Govt. of India, Confederation of Indian Industries, ABET, NBA norms, O*NET and AICTE statutory norms.
Thus, framed curriculum has been developed through framing of Program Educational Objectives (PEO's) which are mapped to the university Vision and Mission, which are there by disseminated into Student Outcomes (SO's) which thereby have been developed into relevant Course Outcomes (CO's).

The resolutions are forwarded to BOS committee, for the approval.

HOD-CSE

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Department of Computer Science and Engineering

Alumni Feedback on Curriculum

Academic Year (2014-15) Sem 2

1. To include quality concepts in Software Testing course and reframe the course name accordingly.
2. Network Security related courses can be added in to the curriculum since need for forensics is required widely.
3. Course Emphasizing on the usage of Animation Tools can be included in to curriculum.
4. Automata courses must cover fundamentals of Natural Language processing.
5. Certificate course based on gaming to be introduced.
6. To include new course on Graph Analytics.
7. For C and DS, Advanced Data structures to be introduced to prepare students towards high end jobs and to enhance programming skills.
8. To change Compiler Design to Language and Compilers as Principles of Programming languages concepts and include Low level program compilation to high level program compilation process.
9. To modify Computer Networks course syllabus by including Python Network programming and NS3 concepts.
10. Big Data and IOT streams can be added newly in M.Tech programs.
11. A course on any foreign languages could be introduced for employability.
12. Research opportunities require courses like Automta and Soft computing in Post graduate program.

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Department of Computer Science Engineering

R16 Annexure(B.Tech)-I

Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
1	15 EN 1101	Rudiments of Communication Skills	2-0-0	2	1	CO 1	Remember speech sounds and apply stress and intonation rules to enhance pronunciation skills.							1					1		Retained from previous curriculum	Enhances Skills in communication whish inturn helps in achieving Employability
					2	CO 2	Understand writing strategies and apply those by using the basic and advanced concepts of grammar.							1					1			
					3	CO 3	Understand the types of texts and tone of the author.							1					1			
					4	CO 4	Understand the importance of interpersonal skills							1					1			
2	15 EN 1202	Interpersonal Communication Skills	2-0-0	2	5	CO 1	Understand the method of identifying the meaning of words from the context and form sentences using words.							1					2		Retained from previous curriculum	Enhances Skills in communication whish inturn helps in achieving Employability
					6	CO 2	Understand and analyze seven types of reading techniques and improve reading speed.							2					1			
					7	CO 3	Understand and apply writing strategies for office/ formal communication.							2					1			
					8	CO 4	Understand and analyze different cultures and the importance of empathy in cross-cultural communication.							1					2			
3	15 EN 2103	Professional Communication Skills	0-0-4	2	9	CO 1	Understand the concept of Group Discussion and listen and speak effectively during the discussion.							1					2		Retained from previous curriculum	Enhances Skills in communication whish inturn helps in achieving Employability
					10	CO 2	Understand and improve learners' competency in competitive English and apply the principles of grammar in real life contexts.							2					2			

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					11	CO 3	Understand skimming & scanning, and apply the types of reasoning in comprehending the information.							3					1			Employability
					12	CO 4	Understand the mechanics and application of presentation skills.						1						2			
4	15 EN 2204	Employability Skills	0-0-4	2	13	CO 1	Analyze one's own strength as a speaker/ Communicator and use discretion while listening.							2					1		Retained from previous curriculum	
					14	CO 2	Apply and analyze various concepts of writing strategies in professional communication skills like, reports, resume and minutes of the meeting.							3					2			Enhances Skills in communication whish inturn helps in achieving Employability
					15	CO 3	Understand the organization of the passage and also analyze the tone, attitude and style of the author.							2					1			
					16	CO 4	Acquire knowledge of and apply people skills in various social organizational and corporate ambiences.						2						1			
5	15 EN 3105	Verbal and Quantitative Reasoning	0-0-4	2	17	CO 1	Understand the method of identifying synonyms and antonyms and analyze the meaning of a word from the context.									1			1		Retained from previous curriculum	
					18	CO 2	Analyze issues and arguments in the process of critical reasoning and apply grammar rules to correct sentences.									1			1			Enhances Skills in communication whish inturn helps in achieving Employability
					19	CO 3	Apply the Concepts of basic Algebra and their importance while solving the problems									1			1			
					20	CO 4	Apply the short-cut methods on the concepts of different models in Calendars, Clocks, Blood relations and various types of arrangements.									1			1			
6					21	CO 1	Understand and analyze the depth of a topic and use the advanced levels in creative speaking and debating.							1					1		Retained from previous curriculum	

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	15 EN 3206	Corporate Communication Skills	0-0-4	2	22	CO 2	Understand and analyze various strategies involved in writing an essay and apply various styles in writing.							2					2			Enhances Skills in communication whish inturn helps in achieving Employability
					23	CO 3	Understand and analyze the given text critically and answer questions on critical reasoning based on the given information.							3					1			
					24	CO 4	Acquire knowledge on various employability skills & analyze a situation and develop adaptability.							3					2			
					25	CO5	Apply the Concepts of basic geometry and their importance while solving the problems.							2					3			
7	15 GN 1001	Ecology and Environment	2-0-0	2	26	CO 1	Understand the importance of Environmental education and conservation of natural resources.								1				1		Retained from previous curriculum	Helps to understand the importance of Envionment & Sustaiability
					27	CO 2	Understand the importance of ecosystems and biodiversity.									1			2			
					28	CO 3	Apply the environmental science knowledge on solid waste management, disaster management and EIA process.								2				1			
8	15 GN 1002	Human Values	2-0-0	2	29	CO1	Understand and identify the basic aspiration of human beings						1						1		Retained from previous curriculum	Helps to understand the importance of Envionment & Sustaiability
					30	CO2	Envisage the roadmap to fulfill the basic aspiration of human beings.						2						2			
					31	CO3	Analyze the profession and his role in this existence.						2						2			
9					32	CO-1	Formulate physical laws and relations mathematically in the form of first order differential equations and identify a method for solving and interpreting the results.					1							1		Retained from previous curriculum	

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	15 MT 1001	Single Variable Calculus and Matrix Algebra	2.2.2	4	33	CO-2	Formulate physical laws and relations mathematically in the form of second/higher order differential equations and identify a method for solving and interpreting the results.					1							2			Enhances the skills towards Mathematical foundations
					34	CO-3	Provide solutions for Fourier series of periodic/non-periodic phenomenon in models involving differential equations.					1							1			
					35	CO-4	Apply numeric solution methods for a system of linear algebraic equations and application oriented matrix eigenvalue problems.					1							1			
					36	CO-5	Verify the solution of problems through MATLAB.											1	1			
10	15 MT 1203	Multivariate Calculus	2.2.2	4	37	CO 1	Determine the maximum and minimum values for the function involving two variables					2							2		Retained from previous curriculum	Enhances the skills towards Mathematical foundations
					38	CO 2	Calculate the length of the arc, area, volume of the surface of a solid revolution					2							2			
					39	CO 3	Model the given phenomena as a partial differential equations of first and second orders											2	2			
					40	CO 4	Solve the partial differential equations by analytical and finite difference methods					2							2			
					41	CO 5	Verify the solution of problems through MATLAB.											2	2			
11	15 MT 2005	Probability and Stochastic	2.2.2	4	42	CO 1	Construct the probability distribution of a random variable, based on a real-world situation, and use it to compute expectation and variance					2							2		Retained from previous curriculum	Enhances the skills towards Mathematical
					43	CO 2	Predict the relationship between two variables and construct the linear and non-linear regression lines for the given data					2							2			

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		Models			44	CO 3	Model the Single and multi server markovian queuing models with finite and infinite capacity.											2	2			foundations
					45	CO 4	Verify and validate the simulation models.											2	2			
					46	CO5	Verify the solution of problems through MATLAB/MINITAB.											2	2			
12	15 ME 1001	Mechanics	2-2--2	4	47	CO 1	Apply the concept of forces, governing static equations and analyze planer system of forces. Apply different analytical methods on spatial system of forces and analyzing them	2											2		Retained from previous curriculum	
					48	CO 2	Understanding the concepts of planar and non-planar system of parallel forces and analyzing them. estimate moment of inertia of lamina and material bodies	2											2			
					49	CO 3	Analyzing the rigid bodies under translation and rotation with and without considering forces.					1							1			Enhances the skills in Engineering Foundational Concepts
					50	CO 4	Understanding the engineering mechanics physical systems prepare and demonstrate the models with the help of mechanics concepts to solve the engineering problems					1							1			
					51	CO5	Apply the concepts of mechanics and carryout different experiments and analyze the results		2										2			
13					52	CO 1	Understand the concepts of crystallography and crystalline imperfections in order to determine crystal structures and to identify defects in crystals			1									1		Retained from previous curriculum	
					53	CO 2	Understand electrical and optical properties of materials and apply them to know various mechanisms involved in electrical, electronic, optical, optoelectronic devices.			1									1			

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	15 PH 1001	Engineering Materials	2-2--2	4	54	CO 3	Understand mechanical and thermal properties of materials and apprehend their importance in identification of materials for specific engineering applications			1									1			Enhances the skills in Engineering Foundational Concepts
					55	CO 4	Understand magnetic properties of materials and apply them to know various mechanisms involved in magnetic memory devices and transformers.			1									1			
					56	CO 5	Understand various properties of materials and apply the knowledge to execute the related experiments to get hands on experience and also to develop some inter disciplinary projects.			1									1			
14	15 CY 1001	Engineering Chemistry	2-2--2	4	57	CO-1	Predict potential complications from combining various chemicals or metals in an engineering setting.			1									1		Retained from previous curriculum	Enhances the skills in Engineering Foundational Concepts
					58	CO-2	Discuss fundamental aspects of electrochemistry and materials science relevant to corrosion phenomena.			1									1			
					59	CO-3	Examine water quality and select appropriate purification technique for intended problem.			1									1			
					60	CO-4	Apply phase rule, polymers, conducting polymers and nano chemistry to engineering processes.		1										1			
					61	CO-5	An ability to analyze & generate experimental skills.		1										1			
15	15 BT 1001	Biology for Engineers	2-0-0	2	62	CO-1	Acquire the Knowledge of basic biology								1		1		1		Retained from previous curriculum	Enhances the skills in Engineering Foundational Concepts
					63	CO-2	Acquire the Knowledge of Human Biological Systems								1		1		1			
					64	CO-3	Acquire Knowledge on Microorganisms and Biosensors								1		1		1			
16					65	CO-1	Understand the basic principles of engineering design								1				1		Retained from previous curriculum	

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	15 GN 1004	Introduction to Engineering	2-0-2	3	66	CO-2	Understand the aspects of critical thinking and problem solving in engineering								2				2			Enhances to know the foundations of Engineering and helps to achieve employability
					67	CO-3	Apply to knowledge of critical thinking to frame real-world problems and provide basic solution approach to such problems from engineering perspective								2				2			
					68	CO-4	Understand and analyze the possible career options in Engineering and develop strategic plan, career targets and mechanism to achieve the same.						3						3			
17	15 ME 1002	Engineering Graphics	0-0-6	3	69	CO-1	Draft orthographic Projections, Isometric views ,projection of planes, Manually and prepare Models in workshop by using drawings.											2	2		Retained from previous curriculum	Enhances the foundational engineering skills
					70	CO-2	Draftorhtographic projections ,isometric views , projection of											2	2			
					71														2			
					72	CO-3	Draft Development of surfaces of solid and sections of solid Manually											2	2			
					73	CO-4	Practicing house wiring through Auto Cad											2	2			
					74	CO-5	Develop 2D & 3D components using Auto Cad Software		2										2			
18					75	CO-1	Understand and apply the fundamentals of a measurement system, characteristics, and metrology using simulation and experimentation tools.	2	2										2		Retained from previous curriculum	
					76	CO-2	Understand various electrical & computer parameters, and apply different measuring techniques on various electrical parameters using simulation and experimentation tools.	2	2										2			

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	15 GN 1003	Measurements	0-0-4	2	77	CO-3	Understand electronic & electro-physiological parameters, and apply measuring techniques on electronic parameters using simulation and experimentation tools.	2	2										2			Enhances the foundational engineering skills
					78	CO-4	Understand and apply different measuring techniques on civil and mechanical parameters using simulation and experimentation tools.	2	2										2			
					79	CO-5	Apply the theoretical concepts to measure different parameters		2										2			
19	15 EC 2002	Signal Analysis	2-2--2	4	80	CO 1	Demonstrate signals and their Spectra	2	2										2		Course Removed	Enhances the Common Engineering Skills
					81	CO 2	Analyze discrete time systems	2	2										2			
					82	CO 3	Design filters to cater signal analysis needs											2	2			
					83	CO 4	Analyze non stationary signals in time											2	2			
					84	CO 5	Analyze non stationary signals in frequency domains											2	2			
20	15GN2205	Coding Skills-1	0-0-4	2	85	CO1	Apply the concepts of basic programming to solve the basic problems, pattern based problems	3				3								3	Retained from previous curriculum	Enhances the coding skill
					86	CO2	Build solutions for problems on Numbers and array based problems , functions,recursion	3				3								3		
					87	CO-3	Solve problems solutions for character/string based problems and pointers	3				3								3		
					88	CO-4	Build solutions to programs on Data structures concepts	3				3								3		
21					89	CO1	Understand measures of efficiency to algorithms, different sorting techniques and the operations of linked lists and various height balanced trees.	1				1							3		Retained from previous curriculum	
					90	CO2	Analyze algorithms and operations of non-linear data structure Graphs.	2				2							3			

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	15CS2104	Advanced Data Structures	2-2--2	4	91	CO3	Demonstrate the ability to organize and represent complex data using Advanced Tree Data Structures for a common practical application.	2				2							3			Enhances the coding skills
					92	CO4	Analyze different hashing techniques and various heap organizations	2											3			
					93	CO5	The student will be able to understand and execute lab experiments and devclop a small project along with his/her team members.	3				3							3			
22	15CS1001	C Programming & Data Structures	2-4--2	5	94	CO1	Illustrate how problems are solved using computers and programming.	2											3		Retained from previous curriculum	Enhances the oppurtunity in employment
					95	CO2	Interpret & Illustrate user defined C functions anddifferent operations on list of data.	2											3			
					96	CO3	Implement Linear Data Structures and compare them					2							3			
					97	CO4	Implement Linear Data Structures and compare them					2							3			
					98	CO5	Apply the knowledge obtained by the course to solve real world problems.											2	3			
23	15 CS 2208	Computer Networks	2-2--2	4	99	CO1	Understand OSI and TCP/IP Models and basics of physical layer and their issues	1											2		Retained from previous curriculum	Basic principles of networking is taught for skill development
					100	CO2	Demonstrate Data Link layer issues and medium access control sub layers concepts					2							2			
					101	CO3	Analyze and implement the algorithms of network and transport layers and concerned services					2							2			
					102	CO4	Evaluate and execute the concepts of TCP ,UDP and the application layer conceptions					3							2			

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					103	CO5	Demonstrate the basic concepts of protocols and their design including client/server models, connection oriented and connection-less models					2							2			
24	15CS2007	Data Base System	2-2--2	4	104	CO1	Explain the advantages of DBMS, its Characteristics, Concepts and ER-Model.	1											3		Retained from previous curriculum	coding and data retrival used in application development is taught for employability and skill development
					105	CO2	Demonstrate Relational Database using SQL detailing the role of Relational Algebra and Relational Calculus	2											3			
					106	CO3	Illustrate the normal forms of Relational DBMS detailing the process of normalization.					2							3			
					107	CO4	Examine Transaction Management, Concurrency Control, File Organizations, Indexing, and Storing data.					2							3			
					108	CO5	Create and Access Data Base for given Applications		2										3			
25	15 CS 2003	Discrete Mathematics	2-2--2	4	109	CO1	Apply the concept of sets, relations, functions and discrete structures , Count discrete event occurrences												2		Retained from previous curriculum	Skill Development by gaining knowledge regarding the foundational mathematics
					110	CO2	Apply Propositional logic and First order logic to solve	2											2			
					111	CO3	Formulate and solve recurrence relations, Apply algebraic structures and lattices.												2			
					112	CO4	To identify the basic properties of graphs and trees and model simple applications												2			
					113	CO5	Relate practical examples to the appropriate set, function												2			
26					114	CO1	The student will be able to understand Basic Concepts of OOP, apply the concepts of classes and objects through Java Language.	2				2							3		Retained from previous curriculum	

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	15CS 2002	Object Oriented Programming	2-2--2	4	115	CO2	The student will be able to apply the concepts of constructors, Overloading, parameter passing, access control, Inheritance.	2				2							3			Enhances the oppurtunity to achieve employment
					116	CO3	The student will be able to apply Packages, Interfaces, Exception Handling.	2				2							3			
					117	CO4	The student will be able to apply I/O Streams and understand Basic Concepts of Multi –Threading	2				2							3			
					118	CO5	Students will be able to develop programs and projects in java.	2				2							3			
27	15CS2206	Operating Systems	2-2--2	4	119	CO1	Understand the basic concepts of operating system, OS structure and process concepts.	1				1							2		Retained from previous curriculum	Basic management of computer system taught for skill development
					120	CO2	Apply the concepts Process Scheduling algorithms and Process Synchronization Problems.	2				2							2			
					121	CO3	Solve the concept of the Deadlock, Memory Management and Virtual Memory Concepts.	2				2							2			
					122	CO4	Demonstrate file system interface, structure, file allocation methods, free space management and threads.	1				1							2			
					123	CO5	Create and develop a project along with his/her team members.					3							2			
28	15GN3205	Coding Skills-2	0-0-4	2	124	CO1	Apply the concepts of basic programming to solve the basic problems, pattern based problems	3				3								3	Introduced newly	Enhances the coding skill
					125	CO2	Build solutions for problems on Numbers and array based problems , functions,recursion	3				3								3		
					126	CO3	Solve problems solutions for character/string based problems and pointers	3				3								3		
					127	CO4	Build solutions to programs on Data structures concepts	3				3								3		

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29	15 CS 2105	Software Engineering	2-2--2	4	128	CO1	Comprehend software development life cycle and prepare SRS document					2							3		Retained from previous curriculum	Priniciples of software development taught for the better employability
					129	CO2	Apply software design and development techniques, understand software process improvement					2							3			
					130	CO3	Identify verification and validation methods in a software engineering project											2	3			
					131	CO4	Analyze and Apply Human Computer techniques for a case study					2							3			
					132	CO5	Apply UML Specification and anaylsis techniques to software designs and programs											2	3			
30	15 CS 3109	Theory of Computation	2-2--2	4	133	CO1	Understand formal machines, languages and computations	2											2		Retained from previous curriculum	System design concepts are taught for skill dvelopment
					134	CO2	Design finite state machines for acceptance of strings and context free grammars for formal languages	2											2			
					135	CO3	Develop pushdown automata accepting strings					2							2			
					136	CO4	Distinguish between decidability and undecidability					2							2			
					137	CO5	Design Turing machine					2							2			
31	15 CS 3110	Algorithm Design and Analysis	2-2--2	4	138	CO1	Analyze time and space complexity					2							3		Retained from previous curriculum	Knowledge on Fine tuning and design of algorithms for the requirement which enhances the skills in basic concepts of computer science
					139	CO2	Identify algorithm design methodology to solve problems.					2							3			
					140	CO3	Design algorithms for network flows and string processing					2							3			
					141	CO4	Distinguish between P and NP classes of problems and solve complex problems											3	3			
					142	CO5	Apply algorithm design techniques to solve any real world problems											3	3			

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Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
32	15 CS 3112	Information Assurance & Security	2-2--2	4	143	CO1	Perform packet sniffing and analyze packets for vulnerabilities	2											2		Retained from previous curriculum	Skill Development in leaning various Security techniques and tools
					144	CO2	Identify system vulnerabilities of communication Protocols	2											2			
					145	CO3	Design firewalls , Authentication Protocols					2							2			
					146	CO4	Analyze encryption algorithms					2							2			
					147	CO5	Developing an application using public key encryption techniques which supports digital signing concepts					2							2			
33	15CS3111	Artificial Intelligence	2-2--2	4	148	CO1	Students will able to apply PROLOG programming for the AI concepts					2							3		Retained from previous curriculum	Fundamental principles are taught of the upcoming technologies for Skill Development
					149	CO2	Students will be able to relate methods for encoding Knowledge In computer systems	1											3			
					150	CO3	Students will be able to Interpret the Problems and search related to AI	1											3			
					151	CO4	Students will be able to infer Slot-and-filler structures and architecture of neural networks as connectionist models	1											3			
					152	CO5	Demonstrate the basic concepts of artificial intelligence in the Laboratory					2							3			
34	15 CS 4171	Machine Learning	3-0-0	3	153	CO1	Explain the differences among the styles of learning:supervised,reinforcement, unsupervised, inductive and deductive	2												2	Retained from previous curriculum	Enhances the understanding in upcoming technologies and benefits the student to improve the employbility
					154	CO2	Comprehend probabilistic methods for learning					2								2		
					155	CO3	Understand Multivariate regression and Classification	2												2		
					156	CO4	Understand rule based knowledge and Analyze clustering	2												2		

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Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
35	15 CS 3113	Platform based development	2-2--2	4	157	CO1	Understand current and evolving Web languages for integrating media and user interaction in both front end and back end elements of a Web site					2							3		Retained from previous curriculum	All modern webbased development is taught for improving employability skills
					158	CO2	Understand Java-Script functions and CSS					2							3			
					159	CO3	Understand game and industrial platforms					2							3			
					160	CO4	Understand,analyze and build dynamic and interactive web sites,Design and implementation of modern SOA and SOA-specific methodologies,technologies and standards											3	3			
					161	CO5	Install and manage server software and Mobile programming tools.											3	3			
36	15 CS 3214	Languages & Compilers	2-2--2	4	162	CO1	Analyzing the design issues involved in various constructs of programming languages, Design top-down and bottom-up parsers					2							2		Retained from previous curriculum	Useful for the skill development, good to design new languages
					163	CO2	Develop syntax directed translation schemes, Design and Implement LR parser					2							2			
					164	CO3	Use formal grammars to specify the syntax of Languages					2							2			
					165	CO4	Analyzing the methods and tools to define syntax and semantics of a languages											2	2			
					166	CO5	Analyzing the methods and tools to define syntax and semantics of a languages											2	2			
37					167	CO1	Distinguish centralized computing and distributed computing detailing formal model of a distributed message passing system and the complexity measures of message passing between systems presenting important abstractions for designing distributed programs	2				2							3		Retained from previous curriculum	

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Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
	15 CS 3215	Parallel &Distributed Computing	2-2--2	4	168	CO2	Identify the leader by coordinating among processors, elaborating formal models for shared memory system and memory requirement for solving mutual exclusion problem.	2				2							3			Basic principles of distributed software over networking environment is taught for skill dvelopment
					169	CO3	Utilize DSM model for inter process communication showing relationship between various types of shared objects and Identify clock synchronization problem applying tight bounds to synchronize clocks.	2				2							3			
					170	CO4	Examine the process of realizing reliable fault tolerance in distributed systemreflecting the specific type of faulty behavior and illustrate simulation that makes Byzantine failures appear to be crash failures	2				2							3			
					171	CO5	Experiment with laboratory programs and develop a small project along with his/her team members.	2				2							3			
38	15 CS 3251	TCP/IP Protocol Suite	3-0-0	3	172	CO1	Design and analyze the existing routing protocols using NS	2												2	Retained from previous curriculum	Internet kind of protocos are taught for skill development
					173	CO2	Identify solution for each functionality at each layer	2												2		
					174	CO3	Identify solution for each functionality at each layer	2												2		
					175	CO4	Case Study: Simulation Of Network Protocols Using NS											2		2		
39	15 CS 4159	Network Architecture and Design	3-0-0	3	176	CO1	Discuss methodologies for analyzing networks of	2												3	Retained from previous curriculum	Installations of multiple networks and designing is taught for skill dvelopment
					177	CO2	Demonstrate knowledge of recent research in the area and exhibit technical writing and presentation skills.					2								3		
					178	CO3	Explain the key concepts and algorithms in complex network analysis.	2												3		

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Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
					179	CO4	Apply a range of techniques for characterizing network structure.					2								3		
40	15 CS 4160	Network Security	3-0-0	3	180	CO1	Analysis and design of algorithms to implement secure protocols.		2											2	Retained from previous curriculum	Security issued related to networked environment is practiced for skill dvelopment and employability
					181	CO2	Discuss security properties and limitations of wired networks											2		2		
					182	CO3	Describe the architecture for public and private key cryptography and how public key infrastructure (PKI) supports network security		2											2		
					183	CO4	Describe common types of vulnerabilities and attacks in web applications, and defenses against them											2		2		
41	15 CS 4161	Wireless communications and Networks	3-0-0	3	184	CO1	Understand algorithm/protocols, environments and communication systems in mobile computing.	2												2	Retained from previous curriculum	Principles of wireless systems are taught for skill
					185	CO2	Evaluate the efficiency of modulation schemes and multiple access technqules.											2		2		
					186	CO3	Analyze the performance of MAC,TCP protocols used for wired network and wireless networks.											2		2		
					187	CO4	Design and analyze the existing routing protocols for multi-hop wireless networks.	2												2		
42	15 CS 4162	Computer Forensics	3-0-0	3	188	CO1	Discuss the security issues network layer and transport Layer	2												2	Retained from previous curriculum	Principles of deigital forencics are taught for skill development
					189	CO2	Apply security principles in the application layer			2										2		
					190	CO3	Apply their theoretical and practical knowledge in forensic computing, into the future and emerging technology			2										2		
					191	CO4	Use forensics tools ,Analyze and validate forensics data	2												2		
43					192	CO1	Determine the software measurement attributes and process metrics												2	2	Retained from previous curriculum	

Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
	15 CS 3252	Software Metrics and Measurements	3-0-0	3	193	CO2	Plan and evaluate metrics for object oreiented software projects	2												2		Software quality and effort estimation techniques are taught for skill development
					194	CO3	Understand project monitoring and control Techniques											2		2		
					195	CO4	Describe several process metrics for assessing and controlling a project. Assess the quality of a proposed metric.	2												2		
44	15 CS 4163	Software Verification and Validation	3-0-0	3	196	CO1	Design test cases suitable for a software development for different domains.	2												2	Retained from previous curriculum	Software validation and testing techniques are taught for skill development
					197	CO2	Identify suitable tests to be carried out. Conduct an inspection or review of software source code for a small or medium sized software project.			2										2		
					198	CO3	Prepare test planning based on the document using automatic testing tools.	2												2		
					199	CO4	Document test plans and test cases designed			2										2		
45	15 CS 4164	Software Architecture and Design Patterns	3-0-0	3	200	CO1	Analyze and combine design patterns to work together in software design.											2		2	Retained from previous curriculum	Software reusability patterens are taught for skill development
					201	CO2	Refactor an existing software implementation to improve some aspect of its design			2										2		
					202	CO3	Discuss and select appropriate software architecture for a simple system suitable for a given scenario											2		2		
					203	CO4	Implement the design patterns in an object oriented language.			2										2		
46					204	CO1	Understand Requirements Specification & Management, Scope Management, Project	2												2	Retained from previous curriculum	Managing software projects
					205	CO2	Apply Software Project Effort and Cost Estimation											2		2		

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Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
	15 CS 4165	Software Project Management	3-0-0	3	206	CO3	Apply the basic principles of risk management, Time Management, and Configuration Management in a variety of simple scenarios including a security situation.											2		2		and their risks, scheduling and budgeting are taught for skill development
					207	CO4	Apply the basic principles of risk management,	2												2		
47	15CS3287	Dynamic Web Publishing	3-0-0	3	208	CO1	To Understand and Illustrate the basic concepts of JavaScript functions and XML namespace	2												2	New course introduced	Tolerance in computing systems and handling projects are taught for skill development
					209	CO2	Describe fundamentals of API interface through JDBC					2								2		
					210	CO3	To learn the interpreter and its convertion to a servlet using JSP	2												2		
					211	CO4	To learn the aynchronous data exchange techniques using AJAX nd management of session					2								2		
48	15 CS 3253	Enterprise Storage Systems	3-0-0	3	212	CO1	Understand storage systems	2												2	Retained from previous curriculum	Data storage systems and management is taught for skill development
					213	CO2	Understand Networking Technologies	2												2		
					214	CO3	Understand object based and unfied storage	2												2		
					215	CO4	Apply security and management					2								2		
49	15 CS 4167	Parallel Algorithms	3-0-0	3	216	CO1	Understand Algorithms and sorting networks	2												2	Retained from previous curriculum	Concurrent algorithms are taught for the faster execution of program is taught for skill development
					217	CO2	Ability to design and analyze parallel algorithms					2								2		
					218	CO3	Apply graph and search algorithms on sorting networks					2								2		
					219	CO4	Understand arithmetic and randomized compuations	2												2		
50	15 CS 4168	Cloud Networking	3-0-0	3	220	CO1	Understand data center networking standards	2												2	Retained from previous curriculum	Networking concepts are linked with cloud environment usage is taught for skill
					221	CO2	Understand server virtualization , Switch Fabric Technology					2								2		
					222	CO3	Cloud Data Center Networking Topologies	2												2		

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					223	CO4	Understand software defined networking					2								2		development
51	15 CS 4169	Cloud Computing	3-0-0	3	224	CO1	Identify the appropriate cloud services for a given Application					2								2	Retained from previous curriculum	
					225	CO2	Analyze Cloud infrastructure including Google Cloud and Amazon Cloud.			2										2		Basic fundamentals of cloud are taught for skill development
					226	CO3	Analyze authentication, confidentiality and privacy issues in Cloud computing environment.			2										2		
					227	CO4	Determine financial and technological implications for selecting cloud computing platforms					2								2		
52	15 CS 4170	High Performance Computing	3-0-0	3	228	CO1	Analyze the performance of GPU memory hierarchy and MPI programming	2												2	Retained from previous curriculum	
					229	CO2	Develop parallel programs using OpenCL library and understand FPGA-Based Supercomputer					2								2		Latest libraries of parellel lgorithms are taught for skill development
					230	CO3	Develop mixed mode programs for Multicore, GPU and cluster oprtimization systems					2								2		
					231	CO4	Generate parallel programs for matrix, graph and sorting problems using Cuda, OpenMP library	2												2		
53	15 CS 3254	Soft Computing	3-0-0	3	232	CO1	Understand the working of neural networks to store and process information	2												2	Retained from previous curriculum	
					233	CO2	Build optimal classifiers using genetic algorithms					2								2		Genetic algorithms for problem solving is taught for skill development
					234	CO3	Apply ANN, RNN models and various soft computing frame works.					2								2		
					235	CO4	Understand Fuzzy Logic Systems and develop Fuzzy logic controllers	2												2		
54					236	CO1	Understand issues related to R Representation	2												2	Retained from previous curriculum	

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Sno	Course Code	Course Title	L-T-P	Credits	S NO	C NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
	15 CS 4183	Big Data & Optimization	3-0-0	3	237	CO2	Understand issues related to R Representation					2								2		Achieving expertise in Bigdata Concepts
					238	CO3	Apply population based search and develop query processing strategies					2								2		
					239	CO4	Understand applications like Travelling Salesman Problem	2												2		
55	15 CS 4172	Natural Language Processing	3-0-0	3	240	CO1	Analyze the natural language text.	2												2	Retained from previous curriculum	Principles of natural language principles are introduced for skill develoment
					241	CO2	Identify the challenges of representing meaning and Generate natural language.					2								2		
					242	CO3	Identify the challenges of representing meaning and Generate natural language.	2												2		
					243	CO4	Simulate, apply, or implement classic and stochastic algorithms for parsing natural language.					2								2		
56	15 CS 4173	Perception and Computer Vision	3-0-0	3	244	CO1	Understand Image representation and modeling	2												1	Retained from previous curriculum	Computer graphics concepts at advanced level are taught for enhances the skills.
					245	CO2	Apply Image transformation methods			2										1		
					246	CO3	Implement image processing algorithms	2												1		
					247	CO4	Design of face detection and recognition algorithms			2										1		
57	15 CS 4174	Multi Agent Systems	3-0-0	3	248	CO1	Characterize and contrast the standard agent architectures.	2												1	Retained from previous curriculum	Agent based software systems are taught for the better management of software for enhancing the skills
					249	CO2	Create logical agents to do inference using first order logic.			2										1		
					250	CO3	Demonstrate using appropriate examples how multi-agent systems support agent interaction	2												1		
					251	CO4	Describe the primary paradigms used by learning agents			2										1		
58					252	CO1	Contrast forward and backward rendering	2												3	Retained from previous curriculum	

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Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
	15 CS 3255	2D/3D Graphics	3-0-0	3	253	CO2	Construct CSG models from simple primitives,such as cubes and quadric surfaces.	2												3		Computer graphics concepts at advanced level are taught for skill development
					254	CO3	Analyze affine and vector geometry	2												3		
					255	CO4	Understand Bezier and B-Spline Curves	2												3		
59	15 CS 4175	Multimedia Technologies	3-0-0	3	256	CO1	Describe the media communications and supporting devices commonly associated with multimedia information and systems	2												3	Retained from previous curriculum	Computer graphics concepts of multi media are taught for skill development
					257	CO2	Demonstrate the use of content-based information analysis in a multimedia information system.	2												3		
					258	CO3	Critique multimedia presentations in terms of their appropriate use of audio, video, graphics, color,and other information presentation concepts with Quality of Service In Network Multimedia Systems	2												3		
					259	CO4	Implement a multimedia application using an authoring system and Middleware for Multimedia									2				3		
60	15 CS 4176	Game Graphics Programming	3-0-0	3	260	CO1	Discuss the concepts of Game design and development.			2										3	Retained from previous curriculum	Computer graphics concepts like game design are taught for skill development
					261	CO2	Design the processes, and use mechanics for game development, Create interactive Games.			2										3		
					262	CO3	Explain the Core architectures of Game Programming.	2												3		
					263	CO4	Use Game programming platforms, frame works and engines	2												3		
61					264	CO1	Understand interpolation & Describe several approaches to using a computer as a means for interacting with and processing data	2												3	Retained from previous curriculum	Computer graphics concepts

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Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
	15 CS 4177	Animation & Visualization	3-0-0	3	265	CO2	Explain kinematic linkages and motion capture	2												3		at advanced level are taught for skill development
					266	CO3	Understand modeling and animating human figures	2												3		
					267	CO4	Apply facial animation, behavioral animation										2			3		
62	15 CS 4178	Cross Platform Mobile Development	3-0-0	3	268	CO1	Design and implement a mobile application using OPENGL ES2.0,Phonegap HTML 5 and JS	2												3	Retained from previous curriculum	Portable deveices based application dvelopment is taghut for skill development
					269	CO2	Design and develop mobile apps, using Android as development platform, with key focus on user			2										3		
					270	CO3	Discuss the constraints that mobile platforms put on developers.	2												3		
					271	CO4	Discuss the performance vs. power tradeoff			2										3		
63	15 CS 3256	Modeling and Simulation for Sciences	3-0-0	3	272	CO1	Understand System dynamics models with interactions: competition, predator-prey models, spread of disease models	2												2	Retained from previous curriculum	Different modeling and simulation techniques are practised for the skill development
					273	CO2	Apply Cellular automaton diffusion simulations: spreading of fire, formation of biofilms					2								2		
					274	CO3	Understand Monte Carlo simulations	2												2		
					275	CO4	Determine system dynamics projects throughout,such as modeling falling and skydiving, enzyme kinetics, the carbon cycle, economics and fishing					2								2		
64	15 CS 4179	Scientific Computing and Visualization	3-0-0	3	276	CO1	Determine the convergence region for a finite difference method and Solve PDE.	2												2	Retained from previous curriculum	Principles of compting techniques and algorithms are taught for skill development
					277	CO2	Solve nonlinear differential equations by numerical methods.					2								2		
					278	CO3	To use iterative methods to solve systems of non-linear equations	2												2		
					279	CO4	Understand volume Visualization, Optimization and Minimum Principles	2												2		

Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
65	15 CS 4180	Parallel Computing	3-0-0	3	280	CO1	Describe the levels of parallelism including task, data, and event parallelism	2												2	Retained from previous curriculum	Concurrent algorithms are taught for the better utilization of CPU is taught for skill development
					281	CO2	Understand Distributed Shared Memory Systems And Programming	2												2		
					282	CO3	Apply standard numerical algorithms to solve ODEs and PDEs. Use computing systems to solve systems of equations					2								2		
					283	CO4	Understand Mutex-Free Synchronization and The Transactional Memory Approach	2												2		
66	15 CS 4181	Optimization and Game Theory	3-0-0	3	284	CO1	Determine the optimum solution to constrained and unconstrained.	2												2	Retained from previous curriculum	Principles of optimization techniques for game development inorder to enhances the skills.
					285	CO2	Determine average queue length and waiting times of queuing models.	2												2		
					286	CO3	Determine optimum solution to transportation problem Using PERT/CPM	2												2		
					287	CO4	Determine the integer solutions to Linear Programming Problems.										2			2		
67	15 CS 4182	Discrete Event Simulation	3-0-0	3	288	CO1	Discrete-Event Simulation Framework for modeling and simulation to a range of problem areas	2												2	Retained from previous curriculum	New Techniques are introduced to for the design of softwrae systemd for skill development
					289	CO2	Understand Activity-Based Modeling and Simulation	2												2		
					290	CO3	Understand Activity-Based Modeling and Simulation	2												2		
					291	CO4	Understand event graph modeling for simulation											2		2		
68	15 CS 4183	Big Data & Optimization	3-0-0	3	292	CO1	Understand issues related to R Representation	2												2	Retained from previous curriculum	Efficiency achievement in big data applications is taught for skill development
					293	CO2	Understand issues related to R Representation					2								2		
					294	CO3	Apply population based search and develop query processing strategies					2								2		

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					295	CO4	Understand applications like Travelling Salesman Problem	2												2		
69	15 CS 4185	Information Visualization & Graph Analytics	3-0-0	3	300	CO1	Understand Fuzzy Logic Systems and develop Fuzzy logic controllers	2												2	Retained from previous curriculum	Graph based analysis is taught for skill enhancement and to use at differnet application araes of computer science
					301	CO2	Apply Extracting Salient Structures for data cleansing					2								2		
					302	CO3	Analyze and evaluate Stats and Layout	2												2		
					303	CO4	Analyze Point-and-Click: Graph Tools like NodeXL, Gephi, Cytoscape					2								2		
70	15 CS 4186	Data Science & Big Data Analytics	3-0-0	3	304	CO1	Understand big data challenges in different domains including social media, transportation, inance and medicine	2												3	Retained from previous curriculum	Latest concepts like big data and its analysis is taught for employability and skill development
					305	CO2	Analyze scalability and performance of relational model, SQL and emergent systems. Apply the statistical analysis methods.											2		3		
					306	CO3	Comprehend machine learning and algorithms for data analytics.	2												3		
					307	CO4	Analyze Map-Reduce programming model for better optimization											2		3		
71	15 CS 3257	Data Warehousing and Mining	3-0-0	3	308	CO1	Student should be able to Understand the necessity of data preprocessing in construction of data warehouse.	1												3	Retained from previous curriculum	Working on tools of data warehousing increses the chances of employability
					309	CO2	Student should be able to Analyze multidimensional data using OLAP tools to facilitate effective data mining.	2	2											3		
					310	CO3	Student should be able to Apply the concepts of data analysis and clustering to postulate accurate classification model for a given problem.		2	2										3		

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					311	CO4	Student should be able to Recommend a methodology formining complex data types and detection of anomaly for the given Application.	3		3										3		
72	15 CS 30A6	FUNDAMENTALS OF DBMS	3-0-0	3	312	CO1	Understand the fundamentals of database management systems including data models, database architectures, and database manipulations and be able to model ER-diagrams		2											2	Retained from previous curriculum	Concepts of data engineering is taught for improving employability skills
					313	CO2	Understand the theories and techniques in developing database applications and be able to write queries, functions and procedures with help of SQL					2								2		
					314	CO3	Understand the theories and techniques in developing database applications and be able to write queries, functions and procedures with help of SQL		2											2		
73	15 CS 30A7	FUNDAMENTALS OF SOFTWARE ENGINEERING	3-0-0	3	315	CO1	Comprehend software development life cycle and prepare SRS document		2											2	Retained from previous curriculum	Concepts of software engineering is taught for enhancing employability
					316	CO2	Apply software design and development techniques, understand software process improvement					2								2		
					317	CO3	Identify verification and validation methods in a software engineering project		2											2		
74	15 CS 30A8	FUNDAMENTALS OF INFORMATION TECHNOLOGY	3-0-0	3	318	CO1	Understand the architectural design of a computerand various basic concepts of operating systems and programming fundamentals		2											2	Retained from previous curriculum	Basic Concepts which helps in Software project management is taught for other Branch students inorder to enhance the
					319	CO2	Analyze various software development methodologies and gain capability to design databases.					2								2		

Dr. C. [illegible]
Alternate HOD
Computer Science & Engineering
Kanaru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWARAM-522

Sno	Course Code	Course Title	L-T-P	Credits	S NO	O NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
					320	CO3	Analyze various software development methodologiesand gain capability to design databases.					2								2		employability skills
75	15 IE 3250	Term Paper	0-0-4	2	321	CO	To enhance Practical exposure towards solving complex engineering problems inorder to achieve Research Exposure					2					2			2	Retained from previous curriculum	Enhances Practical exposure towards solving complex engineering problems inorder to achieve employability
76	15 IE 4048	Practice School	0-0-16	8	322	CO	To enhance Practical exposure towards solving complex engineering problems inorder to achieve Industrial Exposure				2	3					2			2	Retained from previous curriculum	Enhances Practical exposure towards solving complex engineering problems inorder to achieve employability
77	15 IE 4049	Minor Project	0-0-4	2	323	CO	To enhance Practical exposure towards solving complex engineering problems inorder to achieve Research and Industrial Exposure					2								2	Retained from previous curriculum	Enhances Practical exposure towards solving complex engineering problems inorder to achieve employability
78	15 IE 4050	Major Project	0-0-16	8	324	CO	To enhance Practical exposure towards solving complex engineering problems inorder to achieve Research and Industry Exposure				3	3								3	Retained from previous curriculum	Enhances Practical exposure towards solving complex engineering problems inorder to achieve employability
79	PL	Foreign Language			325	CO	To improve Communication skills in Other Languages											3	3		Retained from previous curriculum	Enhances effective communication skills inorder to achieve employability

Sno	Course Code	Course Title	L-T-P	Credits	S.NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
80	ME	Management Elective	3-0-0	3	326	CO	To enhance the Management Skills and to learn Professional Ethics								2					2	Retained from previous curriculum	Understand professional and ethical responsibility inorder to achieve Management Skills
81	15CS512	Computational Complexity	3-0-2	4	314	CO1	Advances in Computing deals with the theoretical foundations of information and computation and their implementation and application in computer systems	1						2							Retained from previous curriculum	Useful for the skill development, good to design new languages
					315	CO2	It has also provided contributors with a medium in which they can explore their subjects in greater depth and breadth		2					2								
					316	CO3	That continue to be of significant, lasting value in this rapidly expanding field.		2					2								
					317	CO4	Software Environments for Distributed systems and clouds: Parallel and Distributed Programming Models		2					2								
82	15CS513	Machine Inteligence	3-0-2	4	318	CO1	Explain the differences among the styles of learning:supervised,reinforcement, unsupervised, inductive and deductive	2												2	Retained from previous curriculum	Enhances the understanding in upcoming technologies and benefits the student to improve the employbility
					319	CO2	Comprehend probabilistic methods for learning					2								2		
					320	CO3	Understand Multivariate regression and Classification	2												2			
					321	CO4	Understand rule based knowledge and Analyze clustering	2												2			
83					322	CO1	Evaluate mathematical expressions by using different types of operations on numbers.	1						1							Retained from previous curriculum	To frame a mathematical
					323	CO2	Simplify expressions and solve equations & inequations.					2		1								

Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
	15CS514	Optimization Techniques	3-0-2	4	324	CO3	Apply different types of arithmetic expressions to solve given problems.							1							Curriculum	mathematical model to Research problems
					325	CO4	Apply methods to find areas , volumes and use graphs to reduce non-linear to linear forms.						2	1								
84	15CS515	Device Management	3-0-2	4	326	CO1	Understand the functionality and design the CPU functional units - control unit, registers, the arithmetic and logic unit, the instruction execution unit, and the interconnections among these components.			2								2	2		Retained from previous curriculum	Useful for the skill development, good to design new languages
					327	CO2	Understand, analyze and design main, cache and virtual memory organizations.			2								2	2			
					328	CO3	Understand, analyze and design different types of I/O transfer techniques			2								2	2			
					329	CO4	Understand the design issues of RISC and CISC CPUs and the design issues of pipeline architectures			2								2	2			
85	15CS516	Formal Methods	3-0-2	4	330	CO1	Analyzing the design issues involved in various constructs of programming languages, Design top-down and bottom-up parsers					2							2		Retained from previous curriculum	Useful for the skill development, good to design new languages
					331	CO2	Develop syntax directed translation schemes, Design and Implement LR parser					2							2			
					332	CO3	Use formal grammars to specify the syntax of Languages					2							2			
					333	CO4	Analyzing the methods and tools to define syntax and semantics of a languages											2	2			
86		Algorithm			334	CO1	Examine the space and time complexities of basic algorithms												2		Retained from previous curriculum	
					335	CO2	Demonstrate Greedy and Dynamic programming methodology for solving optimization problems		1										2			

Dr. G. Krishna Mohan
Alternate HOD
Computer Science & Engineering
Vignan's Foundation for Science, Technology & Research
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Sno	Course Code	Course Title	L-T-P	Credits	S NO	NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
	13OE456	Design and Analysis	3-0-2	4	336	CO3	Apply back tracking and branch and bound methodology for searching same state space trees					2							2			algorithms for the requirement for skill development
					337	CO4	identify the purpose of NP-hard, NP-complete hard graph problems and illustrate PRAM algorithms	1											2			
87	13OE455	Principles of Operting Systems	3-0-2	4	338	CO1	Understand the basic concepts of operating system, OS structure and process concepts.	1				1							2		Retained from previous curriculum	Basic management of computer system taught for skill dvelopment
					339	CO2	Apply the concepts Process Scheduling algorithms and Process Synchronization Problems.	2				2							2			
					340	CO3	Solve the concept of the Deadlock, Memory Management and Virtual Memory Concepts.	2				2							2			
					341	CO4	Demonstrate file system interface, structure, file allocation methods, free space management and threads.	1				1							2			
88	13OE457	Theory of Computations	3-0-2	4	342	CO1	Understand the overall compiler architecture and design of Lexical Analyzer					2							2		Retained from previous curriculum	Enhances Practical exposure towards solving complex engineering problems inorder to achieve employability
					343	CO2	Construct the parser using the Yacc tool					2							2			
					344	CO3	Analyze Syntax directed definition and its translations schemes, intermediate code					2							2			
					345	CO4	Apply the code optimization and generation techniques in the development of a compiler.											2	2			
89	13OE458	Parallel Processing	3-0-2	4	346	CO1	Understand Algorithms and sorting networks	1	2				3								Retained from previous curriculum	This course to helps in getting the knowledge of concurrent algorithms and for skill development
					347	CO2	Ability to design and analyze parallel algorithms		2				3									
					348	CO3	Apply graph and search algorithms on sorting networks	1					3									
					349	CO4	Understand arithmetic and randomized compuations	2	2				3									

Chairman HOD
Computer Science & Engineering
Education Foundation

Sno	Course Code	Course Title	L-T-P	Credits	S NO	CO NO	Description of the Course Outcome	a	b	c	d	e	f	g	h	i	j	k	PSO 1	PSO 2	Type	Rationale
90	13OE459	Data Analytics	3-0-2	4	350	CO1	Acquire the ability to identify potential sources of data and distinguish between quantitative and qualitative data	1						2							Retained from previous curriculum	This course helps in data analysis for cloud environment
					351	CO2	Learn to identify and describe a variety of analysis tools that will assist in processing data.		2					2								
					352	CO3	Demonstrate basic data analysis techniques and show how this analysis can contribute to a business' future growth	2						2								
					353	CO4	Learn how to effectively communicate the results of your analysis.		2					2								

HOD-CSE

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Department of Computer Science and Engineering

Alumni Feedback on Curriculum

Academic Year (2016-17) Sem :

1. Network Theory and Signal analysis can be removed.
2. Tools for Simulation and modeling can be used.
3. Thermodynamics course can be removed.
4. Hectic syllabus structure for compiler design makes the subject tough for the students.

HOD-CSE

Dr. G. Krishna Mohan
Associate Professor
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K L University

u/s 3 of UGC Act, 1956
Koneru Lakshmaiah Education Foundation

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Date: 13-12-2016

Department Academic Committee Meeting

The following Agenda Items are discussed and the resolutions passed are marked against them.

The points discussed in the meeting are:

1. Dr. V.Srikanth, HOD- CSE department addressed the issue on which the meeting is to be conducted.
   - I. Discussion on summarizing the changes to contents, courses outcomes and Blooms taxonomy levels of B.Tech [CSE] 2015-2016 - Program curriculum & syllabus.
   - II. The members of the DAC did not recommend the syllabus change of course (15CS3216) Graphics and visualization and change of the title to the course (15CS4175) Multimedia Technologies.
   - III. DAC recommended the changes to only courses outcomes and Blooms taxonomy levels of B.Tech [CSE] 2015-2016 – Program Curriculum & Syllabus . Annexure I.
   - IV. To discuss and revise B.Tech(CSE) curriculum and Syllabus of 2016-2017 regulations in R16 Annexure(B.Tech)-I.

All programs for 2016-17 has been framed to be in relevance to APIIC, Human Resource Development Policy, Govt. of India, National Skill Development Corporation, Govt. of India, Confederation of Indian Industries, ABET, NBA norms, O*NET and AICTE statutory norms.
Thus framed curriculum has been developed through framing of Program Educational Objectives (PEO's) which are mapped to the university Vision and Mission, which are there by disseminated into Student Outcomes (SO's) which thereby have been developed into relevant Course Outcomes (CO's).

The resolutions are forwarded to BOS committee, for the approval.

HOD-CSE

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Alternate HOD
Computer Science & Engineering
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Guntur District, Andhra Pradesh.

KL UNIVERSITY

DEPARTMENT OF CSE

Industry personnel feedback on the curriculum

SUMMARY REPORT - A.Y. 2016-17

S No	Date	Feedback	Industry person	Industry
1	17-09-2016	Recommended that usage of tools should be improved and to be brought into the syllabus for software engineering course	Mr. K. Srinivas	Tech Mahindra
2	20-11-2016	Informed that it would be very difficult for the student to do projects for all courses, he recommended to have one project per one semester	Mr. Bhawnesh Gandhi	Mphasis
3	27-11-2016	Informed that it is over burden if the student has to do projects for all subjects suggested to allocate projects for more relevant courses	Mrs. Kavita	CTS

HOD-CSE

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CONSOLIDATED REPORT ON FEEDBACK GIVEN BY ACADEMIC PEERS

2016-17 (SEMESTER 2)

Sno	Date	Feedback	Resource person name
1	June 2017	1. Providing wide variety of subject clusters is very much helpful to the students to master themselves in a domain of their interest. 2. Introduction of design oriented approach in operating systems subject may help the students to get insight into the implementation of various functionalities of any operating system. 3. In software engineering course it is better to introduce all the basic concepts of lifecycle so as to bring overall view of the software development process of the industry. (All the students irrespective of their elective need to study this)	Dr.M.Babu Reddy, Department of CSE, Krishna University, Krishna District.
2	June 2017	Include industry oriented subjects.	Dr.P.Radhika Prof.&Principal, Dept of CSE, Vignan Nirula Institute of Technology &Science for women, Guntur.

HOD-CSE
Dr. E.Suresh Babu

Dr. E. SURESH BABU
Head of the Department
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CONSOLIDATED REPORT ON FEEDBACK GIVEN BY ACADEMIC PEERS

2016-17 (SEM 2)

	Excellent	Very Good	Good	Average	Total
Feed back(in %)	67	33	0	0	100

HOD-CSE
Dr. E.Suresh Babu

Dr. E. SURESH BABU
Head of the Department
Computer Science and Engineering
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CONSOLIDATED REPORT ON FEEDBACK GIVEN BY ACADEMIC PEERS

2016-17

Sno	Date	Feedback	Resource person name
1	March 2017	Existing Course Structure is Good.	Dr.Vivek S Deshpande Professor, Dept of IT, MIT Pune
2	March 2017	Existing Regulation Course Structure, Sequence of Courses are good.	Dr.G.RamaKoteshwararao Profesor Dept of IT, V.R.Sidhartha Colg.of Engg, Kanuru, VJD.
3	March 2017	Existing Curriculum is Good.	Dr.Satyaprasad Professor of.CSE, Acharya Nagarjuna University.

Dr. V. SRIKANTH
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CONSOLIDATED REPORT ON FEEDBACK GIVEN BY ACADEMIC PEERS

2016-17

	Excellent	Very Good	Good	Average	Total
Feed back(in %)	0	32	68	0	100

Dr. V. SRIKANTH
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VADDESWARAM

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Department of Computer Science and Engineering

Alumni Feedback on Curriculum

Academic Year (2016-17) Sem 2

1. Network Theory and Signal analysis can be removed.
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HOD-CSE

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