



## Management Review System Formats

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### MINUTES OF THE MEETING

Date of the meeting: 11-05-2019

Name of the meeting: Board of Studies

Attended by: Dr. S. Mercy Shalinie, HODCSE, Dr. Sampath Narayanan, IBM, Bangalore (BSM1), Dr.S.Karthick, NIT, Andra Pradesh (BSM2) and CSE department Faculty Members

Sl. No.	Points discussed	Action plan	Responsibility	Target date
1.	<p>Dr. S.Mercy Shalinie, Head of CSE Department gave a presentation about the PEOs, POs and Program Specific Outcomes (PSOs) for B.E(CSE) Programme, Introduction about the CDIO framework and Categorization of Courses under CDIO for B.E.(CSE). The suggestions given by the experts are</p> <ul style="list-style-type: none"><li>• OBE curriculum has to be revamped and improved to meet the CDIO requirements.</li><li>• Courses with programme outcomes mapping need to be relooked</li><li>• Cyber Law to be considered for Audit course</li><li>• Design thinking workshop to be conducted as part of the course, the course must incorporate requirement analysis, Solution /Product as Prototype design.</li><li>• Course Syllabus versioning can be maintained and managed</li><li>• Discussion on Tentative Program Electives for B.E.(CSE) programme<ul style="list-style-type: none"><li>○ Prescriptive Analytics can be included as an elective</li><li>○ High Performance Computing course can include applications like Deep Learning, Computer Vision etc.,</li><li>○ For Blockchain course, expert lectures/guest lectures can be arranged. Also, NPTEL lecture videos and materials can be suggested for students</li><li>○ Introduce a course on 5G Architecture</li><li>○ In Deep Learning course,<ul style="list-style-type: none"><li>○ Frameworks can be included</li><li>○ NLP papers from recent literature are to be referred for this course</li><li>○ Deep Neural Network Application can be included</li></ul></li><li>○ Statistical Machine Learning course to be shifted to Artificial Intelligence SIG</li></ul></li></ul>	The suggestions will be considered	Head of Department and TLP Coordinator	-

	<ul style="list-style-type: none"> <li>○ For Recommender Systems course <ul style="list-style-type: none"> <li>○ Identify appropriate title for this course</li> <li>○ Include state of art and latest research topics and research papers</li> </ul> </li> <li>○ Multicloud computing , IoT and Edge computing to be included as elective courses</li> <li>○ Microservices and containers <ul style="list-style-type: none"> <li>○ Dockers can be given as Hands-on practice to students</li> </ul> </li> <li>• Elective courses must have slot for discussing research papers from reputed conferences/journals at the end of the course and must be included in the lecture plan also</li> </ul>			
2.	<p><b>18CS310 – Probability and Statistics</b></p> <ul style="list-style-type: none"> <li>• Ms.Sri Vinothini, representative from Mathematics Department gave brief description of the syllabus. The suggestions given by the experts are <ul style="list-style-type: none"> <li>• Case study can be added to address Psychomotor components</li> <li>• CO2: changed into Apply level</li> <li>• Give Practice on R programming to learn regression, hypothesis testing</li> <li>• Application of probability theory and statistics related to machine learning can be taught to students</li> </ul> </li> </ul>	The suggestions have been incorporated in the syllabus	Dr.Anitha Valli Ms.Sri Vinothini	16.05.2019
3.	<p><b>18CS410 – Discrete Mathematics</b></p> <ul style="list-style-type: none"> <li>• Ms.Sri Vinothini, representative from Mathematics Department gave brief description of the syllabus. The suggestions given by the experts are <ul style="list-style-type: none"> <li>• Abstract Algebraic Structures can be included relevant to cryptography</li> <li>• Include Generating function in counting techniques</li> <li>• PO/CO Mapping need to be revisited</li> <li>• CO2: Converted into Apply level</li> <li>• Psychomotor assessment need to be revisited</li> <li>• Mini projects need to be offered</li> <li>• Inclusion of some more topics in set Theory</li> </ul> </li> </ul>	The suggestions have been incorporated in the syllabus	Dr.Anitha Valli Ms.Sri Vinothini	16.05.2019
4.	<p><b>18CS320 – Principles of Programming Paradigms</b></p> <ul style="list-style-type: none"> <li>• Ms.G.Madhu Priya, representative from CSE Department gave brief description of the syllabus. The suggestions given by the experts are <ul style="list-style-type: none"> <li>• SCALA vs JAVA comparison and paradigm evolution need to be included</li> <li>• LISP and Prologs can be added in Logical Language</li> <li>• Flipped mode of learning can be used for some topics</li> </ul> </li> </ul>	The suggestions have been incorporated in the syllabus	Ms.G.Madhu Priya Ms.S.Suguna	16.05.2019

	<ul style="list-style-type: none"> <li>• Lambda calculus can be included</li> <li>• CO1&amp;2: Change it into Apply level</li> <li>• Scope of the course must included in the Preamble section</li> <li>• Include Problem solving methods in the Perquisite section</li> <li>• Sample questions need to be revisited</li> <li>• Concept Map should be at higher level</li> <li>• Introduction to Scripting language can be added</li> <li>• Moving Code (instead of Data) paradigm like Hadoop MR can be included</li> <li>• PO/CO Mapping is to be revisited</li> </ul>			
5.	<p><b>18CS330 – Object Oriented Programming</b></p> <ul style="list-style-type: none"> <li>• Ms.Jane Rubel Angelina, representative from CSE Department gave brief description of the syllabus. The suggestions given by the experts are <ul style="list-style-type: none"> <li>• Include perquisite</li> <li>• PO6 can be mapped with CO's</li> <li>• Analysis level experiments can be included</li> <li>• C++ concepts must be included</li> <li>• JAVA - package concept, Garbage Collection need to be included</li> <li>• Give introduction to JAVA frameworks</li> <li>• Include recent books in C++ and in Java</li> </ul> </li> </ul>	The suggestions have been incorporated in the syllabus	Ms.Jane Rubel Angelina Mr.S.Prasanna	16.05.2019
6.	<p><b>18CS380 – Object Oriented Programming Lab</b></p> <ul style="list-style-type: none"> <li>• Ms.Jane Rubel Angelina, representative from CSE Department gave brief description of the syllabus. The suggestions given by the experts are <ul style="list-style-type: none"> <li>• PO5 mapping need to be revisited</li> <li>• No course code in prerequisite</li> <li>• Participation in Hackathon and technical contest can be included for course Grading</li> </ul> </li> </ul>	The suggestions have been incorporated in the syllabus	Ms.Jane Rubel Angelina Mr.S.Prasanna	16.05.2019
7.	<p><b>18CS340– Data Structures and Algorithms</b></p> <ul style="list-style-type: none"> <li>• Ms.Raja Lavanya, representative from CSE Department gave brief description of the syllabus. The suggestions given by the experts are <ul style="list-style-type: none"> <li>• Include C++ constructs for ADT</li> <li>• Revisit Text books and reference books</li> <li>• Remove ADT operations in all topics</li> <li>• Splay Tree, Bloom filters, KD filters, Fibonacci Heaps can be added</li> <li>• CO/PO mapping need to be revisited</li> <li>• Assessment may start with Apply level and can go up to Analyze level</li> </ul> </li> </ul>	The suggestions have been incorporated in the syllabus	Dr.M.K.Kavitha Devi	16.05.2019

	<ul style="list-style-type: none"> <li>• Psychomotor assessment can go up to complex Overt responses</li> <li>• Quadtree, Suffix Arrays, Tries Data structure can be included</li> </ul>			
8.	<b>18CS370 – Data Structures Lab</b> <ul style="list-style-type: none"> <li>• Ms.Raja Lavanya, representative from CSE Department gave brief description of the syllabus. The suggestions given by the experts are <ul style="list-style-type: none"> <li>• Assessment may be at Evaluate level in CO's</li> <li>• Problem solving, Object Oriented Programming can be considered as prerequisite</li> <li>• Suggested for 2 credits if possible</li> <li>• C++ reference books to be revisited</li> </ul> </li> </ul>	The suggestions have been incorporated in the syllabus	Dr.M.K.Kavitha Devi	16.05.2019
9.	<b>18CS360 – Assembly Language Programming</b> <ul style="list-style-type: none"> <li>• Dr.T.Manikandan, representative from CSE Department gave brief description of the syllabus. The suggestions given by the experts are <ul style="list-style-type: none"> <li>• IoT to be included in Syllabi and CO</li> <li>• Kernels written in Assembly for code optimization can be included</li> <li>• Can Consider NVIDIA and revisit legacy processors like 8085,8086</li> <li>• More weightage can be given for Apply level</li> <li>• PO5,PSO2 mapping need to be revisited</li> </ul> </li> </ul>	The suggestions have been incorporated in the syllabus	Dr.T.Manikandan Mr.R.Chellamani	16.05.2019
10.	<b>18CS420 – Design and Analysis of Algorithms</b> <ul style="list-style-type: none"> <li>• Ms.Raja Lavanya, representative from CSE Department gave brief description of the syllabus. The suggestions given by the experts are <ul style="list-style-type: none"> <li>• Remove course code in Prerequisite</li> <li>• Sorting Topics can be given as review lecture mode</li> <li>• Backtracking and examples are to be included</li> <li>• Inclusion of activity scheduling and job scheduling in Greedy Algorithm</li> <li>• Divide and Conquer-Kratsuba, tackle computation complexity with Heuristic, approximation and randomization</li> <li>• Approximation scheme, Seminal reduction, Nondeterministic Random complexity, Transitive closure to be included</li> <li>• Bellman code etc., can be added in shortest path algorithm</li> <li>• In Assignment problems mention specific topics in lecture schedule</li> <li>• Home tests can be given as Assignment 3</li> <li>• Revisiting of CO vs PO mapping</li> <li>• Some analyze level CO's to be added</li> <li>• Pattern matching algorithm may be included</li> <li>• Reference books must be revisited</li> </ul> </li> </ul>	The suggestions have been incorporated in the syllabus	Ms.Raja Lavanya	16.05.2019

11.	<b>18CS480 – Algorithms Lab</b> <ul style="list-style-type: none"> <li>Ms.Raja Lavanya, representative from CSE Department gave brief description of the syllabus. The suggestions given by the experts are <ul style="list-style-type: none"> <li>Include Python and assess up to Evaluation level in course content</li> <li>Remove course code in prerequisite and add object oriented programming</li> <li>Include Algorithm design Manual book in reference and course era lecture from Stanford university</li> </ul> </li> </ul>	The suggestions have been incorporated in the syllabus	Ms.Raja Lavanya	16.05.2019
12.	<b>18CS430 – System Software and Operating Systems</b> <ul style="list-style-type: none"> <li>Dr.P.Chitra, representative from CSE Department gave brief description of the syllabus. The suggestions given by the experts are <ul style="list-style-type: none"> <li>Inclusion of Case Study on Mini-OS</li> <li>Reference book reprints need to be considered</li> <li>Remove course code in prerequisite</li> <li>CO vs PO mapping need to be revisited</li> </ul> </li> </ul>	The suggestions have been incorporated in the syllabus	Dr.P.Chitra, Mr.K. Narashimma Mallikarjunan	16.05.2019
13.	<b>18CS440 – Database Management Systems</b> <ul style="list-style-type: none"> <li>Ms. A.M.Rajeswari, representative from CSE Department gave brief description of the syllabus. The suggestions given by the experts are <ul style="list-style-type: none"> <li>HBase in memory database, Graph database, Database Tuning, Backup, De-Duplication, Compression, RAID levels, Query Processing and Optimization are to be included</li> <li>CO's are to be revisited to Apply level</li> <li>PO5 and PSO can be mapped with CO's</li> </ul> </li> </ul>	The suggestions have been incorporated in the syllabus	Ms. A.M.Rajeswari Ms.B.Subbulakshmi	16.05.2019
14.	<b>18CS490 – Organizational Behavior Management</b> <ul style="list-style-type: none"> <li>Dr.N.Shivakumar, representative from CSE Department gave brief description of the syllabus. The suggestions given by the experts are <ul style="list-style-type: none"> <li>Include Case studies from IT industry</li> <li>RACI matrix components, Privacy Awareness and Training to be included</li> </ul> </li> </ul>	The suggestions have been incorporated in the syllabus	Dr.N.Shivakumar Mr.V.Vignaraj Ananth	16.05.2019
15.	<b>14CSGG0 – Python Programming</b> <ul style="list-style-type: none"> <li>Ms. G.Thiraviaselvi, representative from CSE Department gave brief description of the syllabus. The suggestions given by the experts are <ul style="list-style-type: none"> <li>Latest books to be added in Reference</li> <li>Database API to be included</li> <li>Assessment type questions, CO's need to be revisited</li> <li>COs can be set up to Apply level as it is General Elective course</li> <li>Apply the concepts to solve “Business” problems instead of “Engineering” problems</li> </ul> </li> </ul>	The suggestions have been incorporated in the syllabus	Ms.G.Thiraviaselvi Ms.Raja Lavanya	16.05.2019

	<ul style="list-style-type: none"> <li>All discipline's engineering problems to be included in case study</li> </ul>			
16.	<p><b>18CGPZ0 - Foundation of Secure Multiparty Computation</b></p> <ul style="list-style-type: none"> <li>Dr.K.Sundarakantham, representative from CSE Department gave brief description of the syllabus. The suggestions given by the experts are <ul style="list-style-type: none"> <li>Cryptography and Network security to be included as prerequisite</li> <li>Abstract Algebra need to be included</li> <li>Case study on Blockchain and Ledger Maintenance need to be included</li> <li>Revisit the preamble section and assessment questions</li> <li>Research papers can be given as flipped resource</li> <li>Anonymization, Masking can be included</li> <li>Content of the course to be expanded and validated</li> </ul> </li> </ul>	The suggestions have been incorporated in the syllabus	Dr.K.Sundarakantham	16.05.2019

Prepared by.....*D. Sulekha*.....Date *17/5/2019*.....Approved by.....*Dr. Sulekha*.....Date *17/5/2019*.....

**THIAGARAJAR COLLEGE OF ENGINEERING, MADURAI-625015**  
**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
**Date of Board of Studies: 11-05-2019**

Ref No : CSE/BOS/BS/2019/

Date : 06-05-2019

The Members of Board of Studies for the B.E. and M.E. Computer Science and Engineering to be held on 11-05-2019(Saturday).

Sl.No	Name of the Member	Position of the member	Name of the Organization/ Institution of the member	Address of the member	Position in BOS	Signature
1.	Dr. S. Mercy Shalinie	Professor and Head	Thiagarajar College of Engineering	HODCSE, Department of CSE, TCE.	Chairman	<i>S. Mercy Shalinie</i>
2.	Dr.Sampath Narayanan	<i>Consultant</i>	<i>Consultant DataEver Consulting</i>		<i>Industry Representative</i>	<i>P. Sampath</i>
3.	Dr.S.Karthick	Assistant Professor and HOD	NIT	Andhra Pradesh	Academic Representative	<i>S. Karthick</i>
4.	Dr.P.Chitra	Professor, CSE	Thiagarajar College of Engineering	Madurai	Internal Staff	<i>P. Chitra</i>
5.	Dr.K.Sundarakantham	Associate Professor, CSE	Thiagarajar College of Engineering	Madurai	Internal Staff	<i>K. Sundarakantham</i>
6.	Ms.B.Subbulakshmi	APCSE	Thiagarajar College of Engineering	Madurai	Internal Staff	<i>B. Subbulakshmi</i>
7.	Dr.M.K.Kavitha Devi	Professor, CSE	Thiagarajar College of Engineering	Madurai	Internal Staff	-
8.	Ms.A.M.Rajeswari	APCSE	Thiagarajar College of Engineering	Madurai	Internal Staff	<i>A.M. Rajeswari</i>
9.	Mr.R.Chellamani	APCSE	Thiagarajar College of Engineering	Madurai	Internal Staff	-
10.	Mr.S.Prasanna	APCSE	Thiagarajar College of Engineering	Madurai	Internal Staff	<i>S. Prasanna</i>

11.	Dr.T.Manikandan	APCSE	Thiagarajar College of Engineering	Madurai	Internal Staff	T.M.N
12.	Dr.N.Shivakumar	APCSE	Thiagarajar College of Engineering	Madurai	Internal Staff	
13.	Ms.G.MadhuPriya	APCSE	Thiagarajar College of Engineering	Madurai	Internal Staff	G.MadhuPriya
14.	Ms.J.Janerubel Angelina	APCSE	Thiagarajar College of Engineering	Madurai	Internal Staff	J.Janerubel
15.	Mr.K.Narasima Mallikarjunan	APCSE	Thiagarajar College of Engineering	Madurai	Internal Staff	K.Narasima
16.	Ms.M.Suguna	APCSE	Thiagarajar College of Engineering	Madurai	Internal Staff	-
17.	Dr.R.LeenaSri	APCSE	Thiagarajar College of Engineering	Madurai	Internal Staff	R.LeenaSri
18.	Mr.V.Vignaraj Anand	APCSE	Thiagarajar College of Engineering	Madurai	Internal Staff	-
19.	Ms.Raja Lavanya	APCSE	Thiagarajar College of Engineering	Madurai	Internal Staff	Raja Lavanya
20.	Ms.G.Thiraviaselvi	APCSE	Thiagarajar College of Engineering	Madurai	Internal Staff	G.Thiraviaselvi
21.	Mrs. M.Nirmala Devi	APCSE	Thiagarajar College of Engineering	Madurai	Internal Staff	M.Nirmala Devi
22.	Ms. Sri Vinodhini	APCSE	Thiagarajar College of Engineering	Madurai	Internal Staff	Sri Vinodhini
23.	MS. A. MALINI	APCSE	Thiagarajar College of Engineering	Madurai	Internal Staff	A.Malini
24.	Dr. G. SREEMUL SIVAN	APCSE	Thiagarajar College of Engg, Madurai	"	"	G.Sreemul Sivan
25.	Dr. M.P. Ramakumar	APCSE	Thiagarajar College of Engg, Madurai	"	"	M.P.Ramakumar

Sat. Shilpa  
HDCSE  
B