

THIAGARAJAR COLLEGE OF ENGINEERING: MADURAI 625 015
(An Autonomous Institution Affiliated to Anna University)

Minutes of the Meeting of the Fiftieth Academic Council

The Fiftieth meeting of Academic Council was held on 30th May 2015, Saturday at 10.30 AM in the Conference Hall at Guest House under the Chairmanship of Dr.V.Abhaikumar, Principal. The following members were present.

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| 1. Dr.N.Vedachalam | ISRO Distinguished Professor, ISRO, Trivandrum |
| 2. Dr. M.Alagar | Professor of Chemical Engineering., AC Tech. AU, Chennai |
| 3. Mr.A.M.Rafeek | Special Officer, CDC, DTE, Chennai |
| 4. Dr.V.Mohan | Dean, Planning and Administration |
| 5. Dr.N.Jawahar | Dean, Research and Development |
| 6. Dr.C.Muruganantham | Head, Department of Mechanical Engineering |
| 7. Dr.S.Raju | Head, Department of Electronics and Commn. Engineering. |
| 8. Dr.N.Kamaraj | Head, Dept. of Electrical & Electronics Engineering. |
| 9. Dr.S.Mercy Shalinie | Head, Dept. of Computer Science & Engineering |
| 10. Dr.S.Muthuramalingam | Head, Dept. of Information Technology |
| 11. Dr.Jinu Loueshidha Kitchley | Head, Dept. of Architecture |
| 12. Dr.S.Parthasarathy | Head, Dept. of Computer Applications |
| 13. Dr.T. Velrajan | Professor, Dept. of Civil Engineering |
| 14. Dr. PL.K.Palaniappan | Associate Professor, Dept. of Mechanical Engineering |
| 15. Mrs.B.Subbulakshmi | Assistant Professor, Dept. of Computer Science and Engg. |
| 16. Dr. S.Vijayalakshmi | Asst. Professor, Dept. of Computer Applications |
| 17. Dr. G.Jothilakshmi | Associate Professor, Dept of Mathematics |
| 18. Dr.M.Kottaisami | Professor, Department of Chemistry |

Members of Pedagogy Group

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| 1. Dr.S.J Thiruvengadam | Professor, Dept. of Electronics and Communication Engg. |
| 2. Dr.S.Saravana Perumaal | Asst. Professor, Department of Mechanical Engineering |
| 3. Dr.S.Padmavathi | Associate Professor, Dept. of Computer Science and Engg. |
| 4. Mr.B.Ashok Kumar | Asst. Professor, Department of EEE |
| 5. Mrs.C.Jeyamala | Asst. Professor, Department of Information Technology |
| 6. Mr.A.L.Subramanian | Asst. Professor, Department of Physics |
| 7. Dr.S.Rajkumar | Asst. Professor, Department of Chemistry |
| 8. Dr.M.Sivananda Saraswathy | Asst. Professor, Department of Mathematics |

The following members had expressed their inability to attend the meeting due to their pre-occupation.

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| 1. Dr.P.V.Vaidyanathan | Former Vice-Chancellor, Annamalai University |
| 2. Dr.D.K.Subramanian | Former Professor, Indian Institute of Science, Bengaluru |
| 3. Dr.R.Rudramurthy | Principal, PSG College of Technology, Coimbatore |
| 4. Dr.Aloknath De | Senior Vice President and CTO, Samsung, Bengaluru |
| 5. Dr.R.Vasudevan | Dean, Co-curricular and Extracurricular Activities |
| 6. Dr.K.Arunachalam | Head, Dept of Civil Engineering |
| 7. Dr.K.Radha | Head, Dept of Chemistry |
| 8. Dr.R.Vasuki | Head, Dept. of Physics |
| 9. Dr.S.Charlesraja | Assistant Professor, Dept. of Elect. & Electronics Engg. |
| 10. Mrs.K.V.Uma | Assistant Professor, Dept. of Information Technology |
| 11. Dr.S.Rajathi | Associate Professor, Department of Physics |
| 12. Dr.G.Chitra | Associate Professor, Department of Civil Engineering |
| 13. Ms.D.Anitha | Asst. Professor, Department of Computer Applications |

The Agenda for the meeting:

- To consider the business brought forward by the Boards of Studies and by the Standing Committee of the Academic Council.
- To discuss any other matter pertaining to the academic activities of the college.

50:01 To confirm the minutes of the 49th meeting of the Academic Council held on 04.12.2014.

Resolved to confirm the minutes of the 49th academic council held on 4th December 2014 as there were no comments on the minutes.

50:02 To review the action taken on the Minutes of the 49th meeting held on 04.12.2014.

The Chairman presented the Action Taken Report on the suggestions made during the 49th academic Council meeting. The Council resolved to ratify the actions taken and accepted the time requested for implementation of few suggestions.

50:03 To consider the recommendations of Board of Studies of Civil Engineering to introduce the Courses of Study, Scheme of Examinations and Syllabi for III Semester B.E (Civil Engineering) Degree Programme as given in **Annexure-A** (Page No.1 to 40).

Resolved to approve the Courses of Study, Scheme of Examinations, syllabi for III Semester B.E (Civil Engineering) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2014-15 onwards.

50:04 To consider the recommendations of Board of Studies of Civil Engineering to introduce new core courses '15IM120 Material Procurement and Management', '15IM130 Traffic Engineering and Management', '15IM140 Project Formulation and Implementation', '15IM160 Environmental Impact Assessment', '15IM180 Traffic Engineering Lab', '15IM220 Project Management', and revised syllabus of the Course '14IM111 Applied Statistics and Optimization' for M.E (Infrastructure Engineering and Management) Degree Programme as given in **Annexure-B** (Page No. 41 to 81).

Resolved to approve the introduction of the new core courses '15IM120 Material Procurement and Management', '15IM130 Traffic Engineering and Management', '15IM140 Project Formulation and Implementation', '15IM160 Environmental Impact Assessment', '15IM180 Traffic Engineering Lab', '15IM220 Project Management', and revised syllabus of the Course '14IM111 Applied Statistics and Optimization' for M.E (Infrastructure Engineering and Management) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2015-16 onwards.

- 50:05** To consider the recommendations of Board of Studies of Civil Engineering to introduce new Elective courses '15IMPF0 Geotechniques for Infrastructure', '15IMPM0 Urban Environmental Management', and '15IMPQ0 Construction Materials and Technology' for M.E (Infrastructure Engineering and Management) Degree Programme as given in **Annexure-C** (Page No.82 to 93).

Resolved to approve the introduction of new Elective courses '15IMPF0 Geotechniques for Infrastructure', '15IMPM0 Urban Environmental Management', and '15IMPQ0 Construction Materials and Technology' for M.E (Infrastructure Engineering and Management) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2015-16 onwards.

- 50:06** To consider the recommendations of Board of Studies of Civil Engineering to introduce new elective courses '14IMPL0 Transportation Planning', '14IMPN0 Construction Equipment Management', and '14IMPP0 Value Engineering' and revised syllabus of the Elective Courses '14IMPH1 Sustainable Development', '14IMPJ1 Urban Planning and Design' and '14IMPK1 Infrastructure Finance' for M.E (Infrastructure Engineering and Management) Degree Programme as given in **Annexure-D** (Page No. 94 to 122).

Resolved to approve the introduction of new elective courses '14IMPL0 Transportation Planning', '14IMPN0 Construction Equipment Management', and '14IMPP0 Value Engineering' and revised syllabus of the Elective Courses '14IMPH1 Sustainable Development', '14IMPJ1 Urban Planning and Design' and '14IMPK1 Infrastructure Finance' for M.E (Infrastructure Engineering and Management) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2014-15 onwards.

- 50:07** To consider the recommendations of Board of Studies of Civil Engineering to introduce new elective course '14ENPP0 Value Engineering' for M.Tech (Environmental Engineering) Degree Programme as given in **Annexure-E** (Page No 123 to 128).

Resolved to approve the introduction of new elective course '14ENPP0 Value Engineering' for M.Tech (Environmental Engineering) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2014-15 onwards.

- 50:08** To consider the recommendations of Board of Studies of Civil Engineering to introduce the Courses of study, Scheme of Examinations and Syllabus for M.E (Structural Engineering) Degree Programme as given in **Annexure-F** (Page No.129 to 295).

Resolved to approve the introduction of the Courses of study, Scheme of Examinations and Syllabus for M.E (Structural Engineering) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2015-16 onwards.

- 50:09** To consider the recommendations of Board of Studies of Civil Engineering to introduce the revised syllabus of the course '14SE311 Design of Steel Concrete Composite Structures' and '14SEPQ1 Theory of Plates' for M.E (Structural Engineering) Degree Programme as given in **Annexure–G** (Page No.296 to 309).

Resolved to approve the introduction of the revised syllabus of the course '14SE311 Design of Steel Concrete Composite Structures' and '14SEPQ1 Theory of Plates' for M.E (Structural Engineering) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2014-15 onwards.

- 50:10** To consider the recommendations of Board of Studies of Mechanical Engineering to introduce the Courses of Study, Scheme of Examinations and Syllabi for III Semester B.E. (Mechanical Engineering) Degree Programme as given in **Annexure –H** (Page No 310 to 353).

Resolved to approve the introduction of the Courses of Study, Scheme of Examinations and Syllabi for III Semester B.E. (Mechanical Engineering) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2014-15 onwards.

- 50:11** To consider the recommendations of Board of Studies of Mechanical Engineering to introduce One Credit Courses ' G1P Finite Element Method" and 'G1Q 3D Printing' for B.E. (Mechanical Engineering) Degree Programme as given in **Annexure –J** (Page No.354 to 358).

Resolved to approve the introduction of One Credit Courses 'G1P Finite Element Method" and 'G1Q 3D Printing' for B.E. (Mechanical Engineering) Degree Programme as presented in academic council.

This comes into effect for the students admitted from the academic year 2011-12 onwards.

- 50:12** To consider the recommendations of Board of Studies of Electrical and Electronics Engineering to introduce the Courses of Study, Scheme of Examinations and Syllabi for III Semester B.E.(Electrical and Electronics Engineering) Degree Programme as given in **Annexure –K** (Page No. 359 to 411).

Resolved to approve the to introduce the Courses of Study, Scheme of Examinations and Syllabi for III Semester B.E.(Electrical and Electronics Engineering) Degree Programme as presented in academic council.

This comes into effect for the students admitted from the academic year 2014-15 onwards.

- 50:13** To consider the recommendations of Board of Studies of Electrical and Electronics Engineering to introduce one credit course on 'EIL Power Grid Operation' for B.E.(Electrical and Electronics Engineering) Degree Programme as given in **Annexure –L** (Page No. 412 to 414).

Resolved to approve the introduction of one credit course on 'EIL Power Grid Operation' for B.E.(Electrical and Electronics Engineering) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2012-13 onwards.

- 50:14** To consider the recommendations of Board of Studies of Electrical and Electronics Engineering to revise the Program Educational Objectives of M.E.(Power Systems Engineering) and M.Tech. (Control and Instrumentation) Degree Programmes as given in **Annexure–M** (Page No. 415 to 416).

Resolved to approve the revision of the Program Educational Objectives of M.E.(Power Systems Engineering) and M.Tech. (Control and Instrumentation) Degree Programmes as presented in the academic council.

This comes into effect for the students admitted from the academic year 2014-2015 onwards.

- 50:15** To consider the recommendations of Board of Studies of Electronics and Communication Engineering to introduce the Courses of Study, Scheme of Examinations and Syllabi for III Semester B.E. (Electronics and Communication Engineering) Degree Programme as given in **Annexure –N** (Page No.417 to 457).

Resolved to approve the introduction of the Courses of Study, Scheme of Examinations and Syllabi for III Semester B.E. (Electronics and Communication Engineering) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2014-15 onwards.

- 50:16** To consider the recommendations of Board of Studies of Electronics and Communication Engineering to introduce new elective course '14CNPX0 Photonic Crystals Principles and Applications' for M.E. (Communication Systems) Degree Programme as given in **Annexure–P** (Page No.458 to 461).

Resolved to approve introduce new elective course '14CNPX0 Photonic Crystals Principles and Applications' for M.E. (Communication Systems) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2014-15 onwards.

- 50:17** To consider the recommendations of Board of Studies of Computer Science and Engineering to introduce the syllabus for '14EG470 Professional Communication', '14CS690 Engineering by Design Lab' and '14CS710 Accounting and Finance' for B.E.(Computer Science and Engineering) Degree Programme as given in **Annexure – Q**(Page No. 462 to 473).

Resolved to approve the introduce the syllabus for '14EG470 Professional Communication', '14CS690 Engineering by Design Lab' and '14CS710 Accounting and Finance' for B.E.(Computer Science and Engineering) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2014-15 onwards.

- 50:18** To consider the recommendations of Board of Studies of Computer Science and Engineering to introduce New Elective Courses for B.E.(Computer Science and Engineering) Degree Programme as given in **Annexure – R**(Page No. 474 to 520).

Resolved to approve the introduction of New Elective Courses for B.E.(Computer Science and Engineering) Degree Programme as given in the academic council.

This comes into effect for the students admitted from the academic year 2014-15 onwards.

- 50:19** To consider the recommendations of Board of Studies of Computer Science and Engineering to introduce the Courses of Study, Scheme of Examinations and Syllabi for I-IV Semesters of M.E.(Computer Science and Engineering) Degree Programme as given in **Annexure – S**(Page No. 521 to 684).

Resolved to approve the introduction of the Courses of Study, Scheme of Examinations and Syllabi for I-IV Semesters of M.E.(Computer Science and Engineering) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2015-16 onwards.

- 50:20** To consider the recommendations of Board of Studies of Information Technology to introduce the Courses of Study, Scheme of Examinations, Syllabi for the Core and Elective Courses of III and IV Semesters M.E (Computer Science and Information Security) Degree Programme as given in **Annexure–T** (Page No.685 to 717)

Resolved to approve the introduction of the Courses of Study, Scheme of Examinations, Syllabi for the Core and Elective Courses of III and IV Semesters M.E (Computer Science and Information Security) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2014-15 onwards.

- 50:21** To consider the recommendations of Board of Studies of Information Technology to introduce syllabi for the courses '14IT310 Discrete Mathematics', '14IT410 Graph Theory and Combinatorics', '14IT510 probability and Statistics', '14IT470 Professional Communication', '14IT610 Accounting and Finance', '14IT710 Management Theory and Practice', '14IT450 Engineering by Design' for B.Tech. (Information Technology) Degree Programme as given in **Annexure–U** (Page No.718 to 760)

Resolved to approve the introduction of introduce syllabi for the courses '14IT310 Discrete Mathematics', '14IT410 Graph Theory and Combinatorics', '14IT510 probability and Statistics', '14IT470 Professional Communication', '14IT610 Accounting and Finance', '14IT710 Management Theory and Practice', '14IT450 Engineering by Design' for B.Tech. (Information Technology) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2014-15 onwards.

- 50:22** To consider the recommendations of Board of Studies of Information Technology to introduce new Elective courses for B.Tech. (Information Technology) Degree Programme as given in **Annexure–V** (Page No.761 to 862)

Resolved to approve the introduction of new Elective courses for B.Tech. (Information Technology) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2014-15 onwards.

- 50:23** To consider the recommendations of Board of Studies of Information Technology to introduce the new Elective Courses 'TC2 Computer Forensics', 'TC3 Information Retrieval', 'TC4 Database Administration' and 'TC5 Internet of Things' for B.Tech. (Information Technology) Degree Programme as given in **Annexure–W** (Page No.863 to 877)

Resolved to approve the introduction of the new Elective Courses 'TC2 Computer Forensics', 'TC3 Information Retrieval', 'TC4 Database Administration' and 'TC5 Internet of Things' for B.Tech. (Information Technology) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2012-13 onwards.

- 50:24** To consider the recommendations of Board of Studies of Information Technology to introduce the one credit course 'T11/14ITP30 Enterprise Mobility' and two credit Course 'T2A/14ITP40 Malware Analysis' for B.Tech. (Information Technology) Degree Programme as given in **Annexure–X** (Page No.878 to 884)

Resolved to approve the introduction of the one credit course 'T11/14ITP30 Enterprise Mobility' and two credit Course 'T2A/14ITP40 Malware Analysis' for B.Tech. (Information Technology) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2012-13 onwards.

- 50:25** To consider the recommendations of Board of Studies of Mechatronics to introduce the Courses of Study, Scheme of Examinations and Syllabi for III Semester B.E. (Mechatronics) Degree Programme as given in **Annexure –Y** (Page No.885 to 929).

Resolved to approve the introduction of the Courses of Study, Scheme of Examinations and Syllabi for III Semester B.E. (Mechatronics) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2014-15 onwards.

- 50:26** To consider the recommendations of Board of Studies of Mechatronics to introduce the Courses of Study, Scheme of Examinations and Syllabi for III and IV Semesters M.E. (Mechatronics) Degree Programme as given in **Annexure–Z** (Page No.930 to 997).

Resolved to approve the introduction of the Courses of Study, Scheme of Examinations and Syllabi for III and IV Semesters M.E. (Mechatronics) Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2014-15 onwards.

- 50:27** To consider the recommendations of Board of Studies of Architecture to revise the Courses of Study, Scheme of Examinations and Syllabi for I Semester B.Arch. Degree Programme as given in **Annexure –AA** (Page No.998 to 1027).

Resolved to approve the revision of revise the Courses of Study, Scheme of Examinations and Syllabi for I Semester B.Arch. Degree Programme as presented in the academic council.

This comes into effect for the students admitted from the academic year 2015-16 onwards.

- 50:28** To consider the decision of Standing Committee of this academic council to introduce Choice Based Credit System for B.E./B.Tech Degree Programme as given in **Annexure – AB**.

Resolved to approve the introduction of Choice Based Credit System for B.E./B.Tech Degree Programme as presented in the academic council.

This comes into effect from the academic year 2015-16 onwards.

- 50:29** To consider the decision of Standing Committee of this academic council to grant extension for a maximum period of two months, beyond the last date of submission of Synopsis given in the Academic Calendar, to complete the final semester project for B.E., B.Tech., M.E., M.Tech. and M.C.A Degree Programmes, subject to the approval of the project Guide and respective Head of the Department.

Resolved to grant extension for a maximum period of two months, beyond the last date of submission of Synopsis given in the Academic Calendar, to complete the final semester project for B.E.,B.Tech.,M.E.,M.Tech. and M.C.A Degree Programmes, subject to the approval of the project review committee in the Department and Standing Committee of the academic council.

This comes into effect from the academic year 2015-16 onwards.

50:30 To consider the decision of Standing Committee of this academic council to introduce Blended MOOC programme for the Courses offered by IIT Bombay for B.E.,B.Tech.Degree Programme and provide 50% weightage for the MOOC score obtained by a student in the calculation of Continuous Assessment Marks.

Resolved to approve the introduction of Blended MOOC programme for the Courses offered by IIT Bombay for B.E.,B.Tech.Degree Programme and provide 50% weightage for the MOOC score obtained by a student in the calculation of Continuous Assessment Marks.

This comes into effect for the students admitted from the academic year 2014-15 onwards.

During the academic council meeting, the members had suggested the following points:

- Impact of offering QEEE courses to students and faculty development programmes by Higher learning Institutions is to be analyzed.
- Faculty members can participate in the courses on 'Rapid Manufacturing', organized by Dr.Karunakaran in IIT, Bombay under Indo-UK Programme.
- Full time research scholars are to be appointed as part of research projects.
- Faculty members and research scholars may apply for INSPIRE postdoctoral fellowship.
- Institute can introduce 'Founder Fellowships' for research scholars.
- Research projects can be submitted to DST in the area of Unmanned Air Vehicle (UAV).
- More research work can be initiated in the areas like Aerospace (Propulsion, communications, Image processing, control systems, navigation and Guidance), Sensors, semiconductor technology, biomedical and bio-research.
- Self Study (SS) courses are to be changed as Guided Study (GS) Courses.
- Mechanical engineering Department should work on Buckling
- Software on Power Electronics may be procured/

S.J.Thiruvengadam

Prepared by: **Dr.S.J. Thiruvengadam**
Pedagogy Group Coordinator

V. Abhaikumar

Approved by: **Dr.V.Abhaikumar**
Principal

