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

Minutes of the Sixty First Meeting of Academic Council

The Sixty First meeting of Academic Council was held on 3rd July 2021, Saturday at 10.30 AM in Online Mode under the Chairmanship of Dr.M.Palaninatha Raja, Principal i/c. The following members were present.

1.	Dr.N.Vedachalam	ISRO Distinguished Professor, ISRO, Trivandrum
2.	Dr.D.K.Subramanian	Former Professor, Indian Institute of Science, Bengaluru
3.	Dr.Raviprakash Salagame	Board Member and Director for Global Industry Program, IUCEE
4.	Dr.R.Vasudevan	Dean, Co-curricular and Extracurricular Activities
5.	Dr.M.Kottaisamy	Dean, Students and Head, Dept. of Chemistry
6.	Dr.K.Chockalingam	Registrar (Admin) and Head, Dept. of Mechanical Engineering
7.	Dr.S.Baskar	Dean (Research and Development)
8.	Dr.S.J. Thiruvengadam	Dean (Academic Process) and Member Secretary
9.	Dr.S.Rajaram	Registrar (Academics) and Head, Dept, of ECE
10.	Dr.T. Velrajan	Head, Dept. of Civil Engineering
11.	Dr.C.K.Babulal	Head, Dept, of Electrical and Electronics Engineering
12.	Dr.P.Chitra	Head, Dept, of Computer Science and Engineering
13.	Dr.C.Deisy	Head, Dept. of Information Technology
14.	Dr.S.Jeyabharathi	Head, Dept. of Mathematics
15.	Dr.M.Mahendran	Head, Dept. of Physics
16.	Dr.Jinu Loueshidha Kitchley	Head, Dept. of Architecture
17.	Dr.S.Parthasarathy	Head, Dept. of Computer Applications and AMCS
18.	Mr.S.Sivakumar	Controller of Examinations
19.	Dr.T.Baskaran	Professor (CAS), Dept. of Civil Engineering
20.	Dr. PL.K.Palaniappan	Professor (CAS), Dept. of Mechanical Engineering
21.	Dr.D.Kavitha	Assistant Professor, Dept. of Elect. & Electronics Engg.
22.	Dr.V.R.Venkatasubramani	Assistant Professor, Dept. of Electronics & Commn. Engg
23.	Dr.B.Subbulakshmi	Assistant Professor, Dept. of Computer Science and Engg.
24.	Dr.S.Pudumalar	Assistant Professor, Dept. of Information Technology
25.	Dr.S.Vijayalakshmi	Professor (CAS), Dept. of Computer Applications
26.	Dr. G.Kanagaraj	Associate Professor, Dept. of Mechatronics
27.	Dr. G.Jothilakshmi	Associate Professor, Dept of Mathematics
28.	Dr.A.L.Subramanian	Assistant Professor, Department of Physics
29.	Dr.S.Rajkumar	Assistant Professor, Department of Chemistry
30.	Dr.I.Chandramathy	Professor, Dept. of Architecture

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

	Mr. M.V. Ramana Murthy	Director & Head, R&D Operations, Ericsson R&D, Bengaluru
	Mr.A.M.Rafeek	Special Officer, CDC, DTE, Chennai
	Dr.V.Chelladurai	Principal, Coimbatore Institute of Technology, Coimbatore
	Dr.Rajeev Sukumaran	Senior Advisor, Teaching Learning Centre, IIT Madras

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.

61:01 To confirm the minutes of the 60th meeting of the Academic Council held on 25.07.2020.

Resolved to confirm the minutes of the 60th meeting of the academic council held on 25th July 2020 as there were no comments on the minutes.

61:02 To review the action taken on the Minutes of the 60th meeting held on 25.07.2020.

The Chairman presented the actions taken on the suggestions made during the 61st Meeting of the Academic Council. The Council resolved to ratify the actions taken as presented and accepted the time requested for implementation of few suggestions. .

61:03 To consider the recommendations of the Board of Studies of Civil Engineering to introduce industry supported courses *'18CE1J0 Structural Analysis and Design using BIM software', '18CE1K0 Municipal wastewater Treatment Plant Design and Practice', '18CE2A0 Project Management with Software'* for B.E. (Civil Engineering) Degree Programme as given in **Annexure–A**.

Resolved to approve the introduction of industry supported courses '18CE1J0 Structural Analysis and Design using BIM software', '18CE1K0 Municipal wastewater Treatment Plant Design and Practice', '18CE2A0 Project Management with Software' for B.E. (Civil Engineering) Degree Programme as presented in the Academic Council.

This comes into effect for the students admitted from the academic year 2018-19 onwards.

61:04 To consider the recommendations of the Board of Studies of Civil Engineering to introduce industry supported course *'18CE1L0 Intellectual Property Rights'* for B.E., B.Tech. Degree Programmes as given in **Annexure–B**.

Resolved to approve the introduction of industry supported course '18CE1L0 Intellectual Property Rights' for B.E. and B.Tech. Degree Programmes as presented in the Academic Council.

This comes into effect for the students admitted from the academic year 2018-19 onwards.

61:05 To consider the recommendations of the Board of Studies of Civil Engineering to revise the syllabus for the course '*18SEPQ1 Structural Steel Design'* for M.E. (Structural Engineering) Degree Programme as given in **Annexure–C**.

Resolved to approve the revision of the syllabus for the course '18SEPQ1 Structural Steel Design' 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 2021-22 onwards.

61:06 To consider the recommendations of the Board of Studies of Civil Engineering to revise the CO-PO Mapping and introduce expected proficiency and expected attainment level for each course outcome in the courses of B.E. (Civil Engineering) Degree Programme as given in **Annexure–D**.

Resolved to approve the revision of the CO-PO Mapping and introduce expected proficiency and expected attainment level for each course outcome in the courses of B.E. (Civil Engineering) Degree Programme as presented in the Academic Council.

This comes into effect for the students admitted from the academic year 2018-19 onwards.

61:07 To consider the recommendations of the Board of Studies of Mechanical Engineering to introduce expected proficiency and expected attainment level for each course outcome in the courses of B.E. (Mechanical Engineering) Degree Programme as given in **Annexure–E.**

Resolved to approve the introduction of expected proficiency and expected attainment level for each course outcome in the courses of B.E. (Mechanical Engineering) Degree Programme as presented in the Academic Council.

This comes into effect for the students admitted from the academic year 2018-19 onwards.

61:08 To consider the recommendations of the Board of Studies of Mechanical Engineering to introduce an audit course '*18MEAE0 Flow Management Concepts'* for B.E. (Mechanical Engineering) Degree Programme as given in **Annexure–F**.

Resolved to approve the introduction of the audit course '18MEAE0 Flow Management Concepts' for B.E. (Mechanical Engineering) Degree Programme as presented in the Academic Council.

This comes into effect for the students admitted from the academic year 2018-19 onwards.

61:09 To consider the recommendations of the Board of Studies of Mechanical Engineering to introduce an audit course '*14MEAE0 Flow Management Concepts*' for B.E. (Mechanical Engineering) Degree Programme as given in **Annexure–G**.

Resolved to approve the introduction of the audit course '14MEAE0 Flow Management Concepts' for B.E. (Mechanical Engineering) Degree Programme as presented in the Academic Council.

This comes into effect for the students admitted from the academic year 2017-18 onwards.

61:10 To consider the recommendations of the Board of Studies of Mechanical Engineering to introduce a Postgraduate Programme on M.E. (Mechanical Engineering - Cyber Physical System) with the list of courses as given in **Annexure–H**.

Resolved to approve the revision of the Postgraduate Programme on M.E. (Mechanical Engineering - Cyber Physical System) with the list of courses as presented in the Academic Council.

This comes into effect for the students admitted from the academic year 2022-23 onwards.

61:11 To consider the recommendations of the Board of Studies of Electrical and Electronics Engineering to introduce the courses '18EERM0 High Voltage Engineering' and '18EERN0 Electric Vehicles' for B.E. (Electrical and Electronics Engineering) Degree Programme as given in **Annexure–I**.

Resolved to approve the introduction of the courses '18EERM0 High Voltage Engineering' and '18EERN0 Electric Vehicles' 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 2018-19 onwards.

61:12 To consider the recommendations of the Board of Studies of Electrical and Electronics Engineering to introduce expected proficiency and expected attainment level for each course outcome in the courses of B.E. (Electrical and Electronics Engineering) Degree Programme as given in **Annexure–J**

Resolved to approve the introduction of expected proficiency and expected attainment level for each course outcome in the courses of 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 2018-19 onwards.

61:13 To consider the recommendations of the Board of Studies of Electronics and Communication Engineering to revise the syllabus for the course *'18EC231 Electronic Devices'* and introduce the course *'21EC240 Electronic Materials'* for B.E. (Electronics and Communication Engineering) Degree Programme as given in **Annexure–K**.

Resolved to approve the revision of the syllabus for the course '18EC231 Electronic Devices' and introduction of the course '21EC240 Electronic Materials' for 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 2021-22 onwards.

61:14 To consider the recommendations of the Board of Studies of Electronics and Communication Engineering to introduce the courses *'18EC710 Consumer Electronics'* & '*18ES790 Capstone Design Project'* and revise the Scheduling of Courses and Categorization of Courses for B.E. (Electronics and Communication Engineering) Degree Programme as given in **Annexure–L**.

Resolved to approve the introduction of the courses '18EC710 Consumer Electronics' & '18ES790 Capstone Design Project' and revision of the Scheduling of Courses and Categorization of Courses for 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 2018-19 onwards.

61:15 To consider the recommendations of the Board of Studies of Electronics and Communication Engineering to introduce Programme Elective Courses for B.E. (Electronics and Communication Engineering) Degree Programme as given in **Annexure–M**.

Resolved to approve the introduction of Programme Elective Courses for 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 2018-19 onwards.

61:16 To consider the recommendations of the Board of Studies of Electronics and Communication Engineering to introduce industry supported courses for B.E. (Electronics and Communication Engineering) Degree Programme as given in **Annexure–N.**

Resolved to approve the introduction of industry supported courses for 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 2018-19 onwards.

61:17 To consider the recommendations of the Board of Studies of Computer Science and Engineering to introduce programme elective courses for B.E. (Computer Science and Engineering) Degree Programme as given in **Annexure–O.**

Resolved to approve the introduction of programme elective courses 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 2018-19 onwards.

61:18 To consider the recommendations of the Board of Studies of Computer Science and Engineering to introduce Industry Supported Courses *'18CS1F0 Practical Approach to Data Warehousing using Informatica', '18CS1G0 Basics of Web Application Security', '18CS1H0 Health Care Automation using Machine Learning'* for B.E. (Computer Science and Engineering) Degree Programme as given in **Annexure–P**.

Resolved to approve the introduction of Industry Supported Courses '18CS1F0 Practical Approach to Data Warehousing using Informatica', '18CS1G0 Basics of Web Application Security', '18CS1H0 Health Care Automation using Machine Learning' 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 2018-19 onwards.

61:19 To consider the recommendations of the Board of Studies of Computer Science and Engineering to introduce General Elective Course *'18CSGF0 Deep Learning using Python'* for B.E./B.Tech. Degree Programmes as given in **Annexure – Q** .

Resolved to approve the introduction of the General Elective Course '18CSGF0 Deep Learning using Python' for B.E./B.Tech. Degree Programmes as presented in the Academic Council.

This comes into effect for the students admitted from the academic year 2018-19 onwards.

61:20 To consider the recommendations of the Board of Studies of Computer Science and Engineering to revise the syllabus for the courses '*18CG121 Modern Operating Systems, 18CG131 Cryptography: Theory and Practice, 18CG161 Agile Software Development, 18CG171 Systems Programming Lab, 18CGPA1 Parallel Computing Systems and 18CGPB1 Operations Research'* for M.E. (Computer Science and Engineering) Degree Programme as given in **Annexure – R**.

Resolved to approve the revise the syllabus for the courses '18CG121 Modern Operating Systems, 18CG131 Cryptography: Theory and Practice, 18CG161 Agile Software Development, 18CG171 Systems Programming Lab, 18CGPA1 Parallel Computing Systems and 18CGPB1 Operations Research' for 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 2021-22 onwards.

61:21 To consider the recommendations of the Board of Studies of Computer Science and Engineering to introduce the syllabus for the courses of Third and Fourth Semesters of B.Tech. (Computer Science and Business Systems) Degree Programme as given in **Annexure – S**.

Resolved to approve the introduction of syllabus for the courses of Third and Fourth Semesters of B.Tech. (Computer Science and Business Systems) Degree Programme as presented in the Academic Council.

This comes into effect for the students admitted from the academic year 2020-21 onwards.

61:22 To consider the recommendations of the Board of Studies of Computer Science and Engineering to revise the CO-PO Mapping for the courses of B.E. (Computer Science and Engineering) Degree Programme as given in Annexure – T.

Resolved to approve the revision of the CO-PO Mapping for the courses of 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 2018-19 onwards.

61:23 To consider the recommendations of the Board of Studies of Information Technology to introduce the syllabus for the course *18IT770 Multimedia Lab* for B.Tech.(Information Technology) Degree Programme as given in **Annexure–U**.

Resolved to approve the introduction of the syllabus for the course 18IT770 Multimedia Lab 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 2018-19 onwards.

61:24 To consider the recommendations of the Board of Studies of Information Technology to introduce Programme Elective Courses for B.Tech.(Information Technology) Degree Programme as given in **Annexure–V**.

Resolved to approve the introduction of Programme 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 2018-19 onwards.

61:25 To consider the recommendations of the Board of Studies of Information Technology to revise the syllabus for the course '*18IT511Web Technologies*' and '*18IT571 Web Technologies Lab*' for B.Tech.(Information Technology) Degree Programme as given in **Annexure–W**.

Resolved to approve the revision of the syllabus for the course '18IT511Web Technologies' and '18IT571 Web Technologies Lab' 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 2019-20 onwards.

61:26 To consider the recommendations of the Board of Studies of Information Technology to introduce Industry Supported Courses for B.Tech.(Information Technology) Degree Programme as given in **Annexure–X**.

Resolved to approve the introduction of Industry Supported 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 2018-19 onwards.

61:27 To consider the recommendations of the Board of Studies of Mechatronics to introduce the Programme Elective Courses for B.E. (Mechatronics) Degree Programme as given in **Annexure –Y**.

Resolved to approve the introduction of the Programme Elective Courses for B.E. (Mechatronics) Degree Programme as presented in the Academic Council.

This comes into effect for the students admitted from the academic year 2018-19 onwards.

61:28 To consider the recommendations of the Board of Studies of Mechatronics to introduce Industry Supported Courses '*18MT1B0 Quality Practices for Mechatronics Engineers' and '18MT1C0 IOT Based Cartridge Valves'* for B.E. (Mechatronics) Degree Programme as given in **Annexure –Z.**

Resolved to approve the introduce Industry Supported Courses '18MT1B0 Quality Practices for Mechatronics Engineers' and '18MT1C0 IOT Based Cartridge Valves' for B.E. (Mechatronics) Degree Programme as presented in the Academic Council.

This comes into effect for the students admitted from the academic year 2018-19 onwards.

61:29 To consider the recommendations of the Board of Studies of Mechatronics to revise the CO-PO Mapping for the courses of B.E. (Mechatronics) Degree Programme as given in **Annexure –AA**.

Resolved to approve the revision of the CO-PO Mapping for the courses of B.E. (Mechatronics) Degree Programme as presented in the Academic Council.

This comes into effect for the students admitted from the academic year 2018-19 onwards.

61:30 To consider the recommendations of the Board of Studies of Mechatronics to introduce the General Elective Courses *'18MTGD0 Design of Experiments' and '18MTGE0 Robot Based Automation'* for B.E. and B.Tech. Degree Programmes as given in **Annexure –AB.**

Resolved to approve the introduction of the General Elective Courses '18MTGD0 Design of Experiments' and '18MTGE0 Robot Based Automation' for B.E. and B.Tech. Degree Programmes as presented in the Academic Council.

This comes into effect for the students admitted from the academic year 2018-19 onwards.

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61:31 To consider the recommendations of the Board of Studies of Mechatronics to revise the syllabus of the courses *'18MT471 Sensors and Measurements Laboratory' and '18MT481 Microcontroller Laboratory'* for B.E. (Mechatronics) Degree Programme as given in **Annexure –AC.**

Resolved to approve the revision of the syllabus of the courses '18MT471 Sensors and Measurements Laboratory' and '18MT481 Microcontroller Laboratory' for B.E. (Mechatronics) Degree Programme as presented in the Academic Council.

This comes into effect for the students admitted from the academic year 2020-21 onwards.

61:32 To consider the recommendations of the Board of Studies of Architecture to revise the syllabus for the course '15ARPE1 Environment and Architecture' for B.Arch. Degree Programme as given in **Annexure –AD**.

Resolved to approve the revision of the syllabus for the course '15ARPE1 Environment and Architecture' for B.Arch. Degree Programme as presented in the Academic Council.

This comes into effect for the students admitted from the academic year 2017-18 onwards.

61:33 To consider the recommendations of the Board of Studies of Architecture to introduce the industry supported course '15AR2B0 Designing for Greater Efficiency' for B.Arch. Degree Programme as given in **Annexure –AE**.

Resolved to approve the introduction of the industry supported course '15AR2B0 Designing for Greater Efficiency' for B.Arch. Degree Programme as presented in the Academic Council.

This comes into effect for the students admitted from the academic year 2017-18 onwards.

61:34 To consider the recommendations of the Board of Studies of Architecture to introduce the Scheduling of Courses, Courses of Study, Scheme of Examinations and Syllabus for the first year courses for B.Arch. Degree Programme as given in **Annexure –AF**.

Resolved to approve the introduction of the Scheduling of Courses, Courses of Study, Scheme of Examinations and Syllabus for the first year courses for B.Arch. Degree Programme as presented in the Academic Council.

This comes into effect for the students admitted from the academic year 2021-22 onwards.

61:35 To consider the recommendations of the Board of Studies of Architecture to introduce Regulations for the B.Arch. Degree Programme as given in **Annexure –AG**.

Resolved to approve the introduction of Regulations for the B.Arch. Degree Programme as presented in the Academic Council.

This comes into effect for the students admitted from the academic year 2021-22 onwards.

61:36 To consider the recommendations of the Board of Studies of Computer Applications to introduce the Bridge courses for the students who do not have bachelors degree in Computer Science or Information Technology (BCA, B.Sc (Computer Science), B.Sc (Information Technology) and B.E. (Computer Science and Engineering)) for 2 Year M.C.A.(Degree Programme) as given in **Annexure –AH**.

Resolved to approve the introduction of introduce the Bridge courses for the students who do not have bachelors degree in Computer Science or Information Technology (BCA, B.Sc (Computer Science), B.Sc (Information Technology) and B.E. (Computer Science and Engineering)) for 2 Year M.C.A.(Degree Programme) as presented in the Academic Council.

This comes into effect for the students passed out from the academic year 2020-21 onwards.

61:37 To consider the recommendations of the Board of Studies of Science and Humanities to introduce the courses *'21PH120 Physics, 21PH180 Physics Laboratory, 21CH130 Chemistry and 21CH190 Chemistry Laboratory'* for B.E./B.Tech. Degree Programmes as given in **Annexure – AI**.

Resolved to approve the introduction of the courses '21PH120 Physics, 21PH180 Physics Laboratory, 21CH130 Chemistry and 21CH190 Chemistry Laboratory' for B.E./B.Tech. Degree Programmes as presented in the Academic Council.

This comes into effect for the students passed out from the academic year 2021-22 onwards.

61:38 To consider the recommendations of the Standing Committee of this academic council to change the **Clause 4.14 Research Publication** of 2018 B.E./B.Tech. Regulations B.E./B.Tech. Degree Programmes as given in **Annexure – AJ**

Resolved to approve the change in the Clause 4.14 Research Publication of 2018 B.E./B.Tech. Regulations B.E./B.Tech. Degree Programmes as presented in the Academic Council.

This comes into effect for the students passed out from the academic year 2018-19 onwards.

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

The members expressed their concerns on the sliding in NIRF Ranking of the College and suggested to present the actions taken to improve the ranking. Placement statistics are to be given in percentage. Special efforts are to be taken for placement for Postgraduate students

Research Publications are to be given for each department.

Targets are to be set for the identified performance metrics and the achievement levels are to be reported.

Multidisciplinary skills, critical thinking, adaptability and complex problem solving are to be considered as performance metrics for curriculum design and implementation

Welding efficiency on Structural Steel Design need to be focused

High Voltage Laboratory may be established in Electrical and Electronics Engineering Department

Special webinars on 'How to write research papers? and 'How to Publish Research Papers?' are to be arranged for Undergraduate and postgraduate students.

 A course on 'Technical Documentation' may be offered to all undergraduate and postgraduate students in order to promote writing skills. The credit is 1 and mandatory. In first semester Mathematics, Physics and Chemistry courses, practice questions are to be given in alignment with course outcomes in order to prepare them for complex problem solving in engineering courses.

Fire safety aspects are to be included in B.Arch. Curriculum

Course Titles are to be appropriate and specific. The words like 'Advanced', 'Modern' are to be avoided.

The curriculum for the proposed PG programme on Cyber Physical Systems is to be revamped

It is emphasized to ensure the courses such as Machine Learning and Artificial Intelligence are offered in all the undergraduate engineering programmes

Prepared by:

Dr.S.J. Thiruvengadam
Dean (Academic Process)

Approved by:

Dr.M.Palaninatha Raja
Principal i/c

NOTE: As the Academic Council is conducted in online mode, there will be no signature of the persons attended the same. However, the minutes are approved in the next Academic Council meet and the same is added in agenda