

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

MINUTES OF THE SIXTY SECOND MEETING OF ACADEMIC COUNCIL

The Sixty Second meeting of the Academic Council was held on 29th January 2022, Saturday at 2.30 PM in Online Mode under the Chairmanship of Dr. M.Palaninatha Raja, Principal i/c. The following members were present.

1	Dr.D.K.Subramanian	Former Professor, Indian Institute of Science, Bengaluru
2	Dr.K.Palanivelu	Professor, Centre for Environmental Studies, Anna University, Chennai
3	Dr.P.Latha	Principal i/c, Government College of Engineering, Tirunelveli
4	Mr. M.V. Ramana Murthy	Director & Head, R&D Operations, Ericsson R&D, Bengaluru
5	Dr.Raviprakash Salagame	Board Member and Director for Global Industry Program, IUCEE
6	Dr.R.Vasudevan	Dean, Co-curricular and Extracurricular Activities
7	Dr.M.Kottaisamy	Dean, Students and Head, Dept. of Chemistry
8	Dr.K.Chockalingam	Registrar (Admin) and Head, Dept. of Mechanical Engineering
9	Dr.S.Baskar	Dean (Research and Development)
10	Dr.S.J. Thiruvengadam	Dean (Academic Process) and Member Secretary
11	Dr.S.Rajaram	Registrar (Academics) and Head, Dept, of ECE
12	Dr.T. Velrajan	Head, Dept. of Civil Engineering
13	Dr.C.K.Babulal	Head, Dept. of Electrical and Electronics Engineering
14	Dr.S.Mercy Shalinie	Dean (MIS) and Head, Dept. of Computer Science and Engineering
15	Dr.P.Chitra	Head, Dept. of Computer Applications
16	Dr.C.Deisy	Head, Dept. of Information Technology
17	Dr.S.Jeyabharathi	Head, Dept. of Mathematics
18	Dr.M.Mahendran	Head, Dept. of Physics
19	Dr.S.Parthasarathy	Head, Dept. of Applied Mathematics and Computational Science
20	Mr.S.Muthuramalingam	Controller of Examinations
21	Dr.T.Baskaran	Professor (CAS), Dept. of Civil Engineering
22	Dr. PL.K.Palaniappan	Professor (CAS), Dept. of Mechanical Engineering
23	Dr.D.Kavitha	Assistant Professor, Dept. of Elect. & Electronics Engineering.
24	Dr.V.R.Venkatasubramani	Assistant Professor, Dept. of Electronics & Communication. Engg
25	Dr.B.Subbulakshmi	Assistant Professor, Dept. of Computer Science and Engineering
26	Dr.S.Vijayalakshmi	Professor (CAS), Dept. of Computer Applications
27	Dr. G.Kanagaraj	Associate Professor, Dept. of Mechatronics
28	Dr.A.L.Subramanian	Assistant Professor, Department of Physics
29	Dr.I.Chandramathy	Professor, Dept. of Architecture
30	Dr.D.Anitha	Assistant Professor, Dept. of Applied Mathematics and Computational Science
31	Dr.C.Jeyamala	Assistant Professor, Department of Information Technology
32	Dr.P.G.S.Velmurugan	Assistant Professor, Dept.of Electronics and Communication Engg.

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

1	Dr.N.Vedachalam	ISRO Distinguished Professor, ISRO, Trivandrum
2	Dr.K. Malathy	Professor, School of ECE, Anna University, Chennai
3	Dr.Jinu Louishidha Kitchley	Head, Department of Architecture

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.

62:01 To confirm the minutes of the 61st meeting of the Academic Council held on 03.07.2021.

Resolved to confirm the minutes of the 61st meeting of the Academic Council held on 3rd July 2021 as there were no comments on the minutes.

62:02 To review the action taken on the Minutes of the 61st meeting of the Academic Council held on 3rd July 2021.

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.

62:03 To consider the recommendations of the Board of Studies of Civil Engineering to introduce industry supported courses '18CE1M0 Water Distribution System Analysis and Design using Software' and '18CE2B0 Lean Construction' and change the category of the course '18CE630 Data Structures' from Professional Core courses to Engineering Science for B.E. (Civil Engineering) Degree Programme as given in Annexure-A.

Resolved to approve the introduction of industry supported courses '18CE1M0 Water Distribution System Analysis and Design using Software' and '18CE2B0 Lean Construction' and change the category of the course '18CE630 Data Structures' from Professional Core courses to Engineering Science 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.

62:04 To consider the recommendations of the Board of Studies of Civil Engineering to revise the syllabi for the course '18SE272 Dynamics Laboratory' for M.E. (Structural Engineering) Degree Programme as given in Annexure-B.

Resolved to approve the revision of the syllabi for the course '18SE272 Dynamics Laboratory' 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 2018-19 onwards.

62:05 To consider the recommendations of the Board of Studies of Mechanical Engineering to introduce industry supported courses '18ME1E0 Machine Vision System in Digital Transformation' and '18ME2F0 Design of Jigs and Fixtures' for B.E. (Mechanical Engineering) Degree Programme as given in Annexure-C.

Resolved to approve the introduction of industry supported courses '18ME1E0 Machine Vision System in Digital Transformation' and '18ME2F0 Design of Jigs and Fixtures' 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

- 62:06** To consider the recommendations of the Board of Studies of Mechanical Engineering to introduce the course '21ME410 Computational Methods' for B.E. (Mechanical Engineering) Degree Programme as given in Annexure-D.

Resolved to approve the introduction of the course '21ME410 Computational Methods' for B.E. (Mechanical Engineering) Degree Programme. .

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

- 62:07** To consider the recommendations of the Board of Studies of Electrical and Electronics Engineering to introduce an elective course '18EEEB0 Python Programming' for B.E. (Electrical and Electronics Engineering) Degree Programme as given in Annexure-E.

Resolved to approve the introduction of the elective course '18EEEB0 Python Programming' for B.E. (Electrical and Electronics Engineering) Degree Programme.

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

- 62:08** To consider the recommendations of the Board of Studies of Electrical and Electronics Engineering to introduce industry supported courses '18EE1F0 Industrial Drives and Automation', '18EE1G0 ASIC design for UDSM nodes', '18EE2H0 Energy Storage Systems' and '18EE2J0 Solar Photovoltaic Systems' for B.E. (Electrical and Electronics Engineering) Degree Programme as given in Annexure-F.

Resolved to approve the introduction of industry supported courses '18EE1F0 Industrial Drives and Automation', '18EE1G0 ASIC design for UDSM nodes', '18EE2H0 Energy Storage Systems' and '18EE2J0 Solar Photovoltaic Systems' for B.E. (Electrical and Electronics Engineering) Degree Programme.

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

- 62:09** To consider the recommendations of the Board of Studies of Electrical and Electronics Engineering to revise the syllabi for the course '18EE351 Signals and Systems' for B.E. (Electrical and Electronics Engineering) Degree Programme as given in Annexure-G.

Resolved to approve the revision of the syllabi for the course '18EE351 Signals and Systems' 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 2021-22 onwards.

- 62:10** To consider the recommendations of the Board of Studies of Electrical and Electronics Engineering to introduce elective courses '18PSPT0 Machine Learning', '18PSPU0 Internet of Things' and '18PSPV0 Deep Learning' for M.E. (Power System Engineering) Degree Programme as given in Annexure-H.

Resolved to approve the introduction of the elective courses '18PSPT0 Machine Learning', '18PSPU0 Internet of Things' and '18PSPV0 Deep Learning' for M.E. (Power System Engineering) Degree Programme as presented in the Academic Council.

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

- 62:11** To consider the recommendations of the Board of Studies of Electrical and Electronics Engineering to revise the syllabi for the courses '18PS121 Power Systems Dynamics and Stability' and '18PSPB1 Smart Power Grid' for M.E. (Power System Engineering) Degree Programme as given in Annexure-I.

Resolved to approve the revision of the syllabi for the course '18PS121 Power Systems Dynamics and Stability' and '18PSPB1 Smart Power Grid' for M.E. (Power System Engineering) Degree Programme as presented in the Academic Council.

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

- 62:12** To consider the recommendations of the Board of Studies of Electrical and Electronics Engineering to introduce the course '21EE410 Numerical Methods, Probability and Complex Variables' for B.E. (Electrical and Electronics Engineering) Degree Programme as given in Annexure-J.

Resolved to approve the introduction of the course '21EE410 Numerical Methods, Probability and Complex Variables' for B.E. (Electrical and Electronics Engineering) Degree Programme.

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

- 62:13** To consider the recommendations of the Board of Studies of Electronics and Communication Engineering to introduce Curriculum for M.Tech (Defence Technology) Degree Programme as given in Annexure-K.

Resolved to approve the introduction of the Curriculum for M.Tech (Defence Technology) Degree Programme as presented in the Academic Council.

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

- 62:14** To consider the recommendations of the Board of Studies of Electronics and Communication Engineering to revise the Assessment Pattern for the courses '18EC490 Project Management' and '18EC710 Consumer Electronics' for B.E. (Electronics and Communication Engineering) Degree Programme as given in Annexure-L.

Resolved to approve the revision of the Assessment Pattern for the courses '18EC490 Project Management' and '18EC710 Consumer Electronics' for B.E. (Electronics and Communication Engineering) Degree Programme as presented in Academic Council.

This comes into effect for the students admitted from the academic year 2019-20 and 2020-21 respectively.

- 62:15** To consider the recommendations of the Board of Studies of Electronics and Communication Engineering to introduce Programme Elective Courses '18CNRA0 Solid State Device Modeling and Simulation' and '18CNRB0 Nano MOSFET Modeling' for M.E. (Communication Systems) Degree Programme as given in Annexure-M.

Resolved to approve the introduction of Programme Elective Courses '18CNRA0 Solid State Device Modeling and Simulation' and '18CNRB0 Nano MOSFET Modeling' 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 2021-22 onwards.

- 62:16** To consider the recommendations of the Board of Studies of Electronics and Communication Engineering to introduce Expected Proficiency and Expected Level of Attainment for the courses in B.E. (Electronics and Communication Engineering) Degree Programme as given in Annexure-N.

Resolved to approve the introduction of Expected Proficiency and Expected Level of Attainment for the courses in 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.

- 62:17** To consider the recommendations of the Board of Studies of Computer Science and Engineering to introduce programme elective courses '18CSRA0 Interactions Design for XR', '18CSRB0 Cyber Penetration and Defense' and '18CSRC0 Human Computer Interactions' of B.E. (Computer Science and Engineering) Degree Programme as given in Annexure-O.

Resolved to approve the introduction of the programme elective courses '18CSRA0 Interactions Design for XR', '18CSRB0 Cyber Penetration and Defense' and '18CSRC0 Human Computer Interactions' 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.

- 62:18** To consider the recommendations of the Board of Studies of Computer Science and Engineering to introduce Industry Supported Courses '18CS1J0 Edge Analytics', '18CS1K0 Agile Product Development for Enterprises', and '18CS1L0 Data Visualization using Tableau' for B.E. (Computer Science and Engineering) Degree Programme as given in Annexure-P.

Resolved to approve the introduction of the Industry Supported Courses '18CS1J0 Edge Analytics', '18CS1K0 Agile Product Development for Enterprises', and '18CS1L0 Data Visualization using Tableau' 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.

- 62:19** To consider the recommendations of the Board of Studies of Computer Science and Engineering to introduce the Humanities and Social Science course '21CS710 Accounting and Economics' for B.E. (Computer Science and Engineering) Degree Programme as given in Annexure - Q.

Resolved to approve the introduction of Humanities and Social Science course '21CS710 Accounting and Economics' for B.E. (Computer Science and Engineering) Degree Programme

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

- 62:20** To consider the recommendations of the Board of Studies of Computer Science and Engineering to introduce the course '21CS410 Statistical Techniques' for B.E. (Computer Science and Engineering) Degree Programme as given in Annexure -R.

Resolved to approve the introduction of the course '21CS410 Statistical Techniques' for the B.E (Computer Science and Engineering) Degree programme as presented in the Academic Council.

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

- 62:21** To consider the recommendations of the Board of Studies of Computer Science and Engineering to revise PEO-Mission mapping, CO-PO-PSO mapping for 2014 Curriculum, EP, ELA calculation for 2018 Curriculum, PO and PSO Target calculation for B.E. (Computer Science and Engineering) Degree Programmes as given in Annexure - S.

Resolved to approve the revision of PEO-Mission mapping, introduction of CO-PO-PSO mapping for 2014 Curriculum, EP, ELA calculation for 2018 Curriculum, PO and PSO Target calculation 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.

- 62:22** To consider the recommendations of the Board of Studies of Information Technology to introduce the syllabus for industry supported courses '18IT1F0 Knowledge Graph and its Applications' and '18IT2E0 API Development and Deployment' for B.Tech.(Information Technology) Degree Programme as given in Annexure-T.

Resolved to approve the introduction of the industry supported courses '18IT1F0 Knowledge Graph and its Applications' and '18IT2E0 API Development and Deployment' for B.Tech.(Information Technology) Degree Programme as presented in Academic Council.

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

- 62:23** To consider the recommendations of the Board of Studies of Information Technology to introduce Programme Elective Courses '18ITRJ0 Kotlin Programming for Android', and '18ITRK0 Enterprise Design Patterns' for B.Tech.(Information Technology) Degree Programme as given in Annexure-U.

Resolved to approve the introduction of Programme Elective Courses '18ITRJ0 Kotlin Programming for Android', and '18ITRK0 Enterprise Design Patterns' for B.Tech. (Information Technology) Degree Programme as presented in Academic Council.

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

- 62:24** To consider the recommendations of the Board of Studies of Information Technology to introduce General Elective courses '18ITGH0 Kotlin Programming' and '18ITGJ0 Cloud Application Development Essentials' for B.E Degree Programmes as given in Annexure-V.

Resolved to approve the introduction of General Elective courses '18ITGH0 Kotlin Programming' and '18ITGJ0 Cloud Application Development Essentials' for B.E Degree Programmes as presented in Academic Council.

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

- 62:25** To consider the recommendations of the Board of Studies of Information Technology to introduce the course '21IT410 Discrete Mathematics and Probability' for B.Tech.(Information Technology) Degree Programme as given in Annexure-W.

Resolved to approve the introduction of course '21IT410 Discrete Mathematics and Probability' for B.Tech.(Information Technology) Degree Programme as presented in Academic Council.

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

- 62:26** To consider the recommendations of the Board of Studies of Mechatronics to revise the syllabi for the course '18MT281 Workshop' for B.E. (Mechatronics) Degree Programme as given in Annexure-X.

Resolved to approve the revision of syllabi for the course '18MT281 Workshop' for B.E. (Mechatronics) Degree Programme as presented in Academic Council.

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

- 62:27** To consider the recommendations of the Board of Studies of Architecture to introduce the industry supported course '15AR1C0 Preparatory Skills for Architectural Career' for B.Arch. Degree Programme as given in Annexure -Y.

Resolved to approve the introduction of the industry supported course '15AR1C0 Preparatory Skills for Architectural Career' for B.Arch. Degree Programme as presented in Academic Council.

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

- 62:28** To consider the recommendations of the Board of Studies of Architecture to introduce the elective course '15ARPS0 Designing for Greater Efficiency' for B.Arch. Degree Programme as given in Annexure -Z.

Resolved to approve the introduction of the elective course '15ARPS0 Designing for Greater Efficiency' for B.Arch. Degree Programme as presented in Academic Council.

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

- 62:29** To consider the recommendations of the Board of Studies of Architecture to introduce the elective course '18GAPC0 Design Research and Field Study' for M.Arch. Degree Programme as given in Annexure -AA.

Resolved to approve the introduction of the elective course '18GAPC0 Design Research and Field Study' for M.Arch. Degree Programme as presented in Academic Council.

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

- 62:30** To consider the recommendations of the Standing Committee to introduce the syllabus of the TCE online courses for B.E./B.Tech./M.Sc./MCA Degree Programmes as given in Annexure –AB.

Resolved to ratify the introduction of the syllabus of the TCE online courses for B.E./B.Tech./M.Sc./MCA Degree Programmes as presented in Academic Council.

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

- 62:31** To consider the recommendations of the Standing Committee to introduce New Clause in the Regulations of B.E./B.Tech./M.Sc./MCA Degree programmes as given in Annexure –AC.

Resolved to ratify the inclusion of amendment in clause 4.11 in the Regulations of B.E./B.Tech Degree Programmes and 4.10 in the Regulations of M.Sc./MCA Degree Programmes as presented in the Academic Council.

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

- 62:32** To consider the recommendations of the Standing Committee for ratification in change of credits from 2 to 3 for the course on '18ES590 System Thinking' of B.E./B.Tech Degree Programmes.

Resolved to ratify the change of credits from 2 to 3 for the course on '18ES590 System Thinking' of 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.

- 62:33** To consider the recommendations of the Standing Committee for ratifying the introduction of new courses on '21MA310 Calculus and Matrices' for B.E./B.Tech. Degree Programmes and '21CB310 Statistical Computing', '21CB370 Data Structures Lab' and '21CB410 Discrete Mathematics and Linear Algebra' for B.Tech (Computer Science and Business Systems) Degree Programme and '21EC410 - Complex Analysis and Numerical Methods' for B.E (Electronics and Communication Engineering) Programme as given in Annexure - AD.

Resolved to ratify the introduction of new courses on '21MA310 Calculus and Matrices' for B.E./B.Tech. Degree Programmes and '21CB310 Statistical Computing' '21CB370 Data Structures Lab' and approve the introduction of the course '21CB410 Discrete Mathematics and Linear Algebra' for B.Tech (Computer Science and Business Systems) Degree Programme and '21EC410 Complex Analysis and Numerical Methods' for B.E (Electronics and Communication Engineering) Degree Programme as presented in the Academic Council.

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

- 62:34** To consider the recommendations of the Standing Committee to introduce Minor/Honours for *B.E./B.Tech. Degree programmes*.

Resolved to introduce Minor/Honours for B.E./B.Tech. Degree programmes as per the guidelines given by AICTE

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

- 62:34** To consider the recommendations of the Standing Committee for the approval to change the nomenclature of M.E. (Infrastructure Engineering and Management) to M.E. (Construction Engineering and Management) and M.E. (Industrial Engineering) to M.E. (Engineering Design).

Resolved to approve the change in the nomenclature of M.E. (Infrastructure Engineering and Management) to M.E. (Construction Engineering and Management) and M.E. (Industrial Engineering) to M.E. (Engineering Design) as presented in the Academic Council.

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

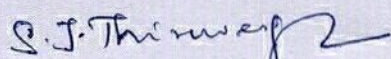
IV Any other matter

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

- It has been suggested to add topics on 'Errors' in the course '21ME410 Computational Methods'.
- It has been suggested to integrate Python with Machine Learning in the course '18EEEB0 Python Programming, with focus on large scale designs.
- It has been suggested to include topics on Digital Control and State Estimation on machines in the courses 18EE1F0 Industrial Drives and Automation and 18PS121 Power system Dynamics and Stability
- It has been suggested to revise the content of the course '21EE410 Numerical Methods, Probability and Complex Variables' for lateral entry students.
- The current syllabus for the course '18ES590 System Thinking' looks like the course on 'System Design and Development or System Engineering'. It is to be revised in the new curriculum, considering the Darvini's Principles of Systems Thinking.
- It has been suggested to revise the syllabus of the course '21CS710 Accounting and Economics' with the topics on Human Machine Interaction, Behavior Engineering, AI, Ethics, Explainable AI, Financial Analysis and Audit. This course may be offered to all the B.E./B.Tech. students.

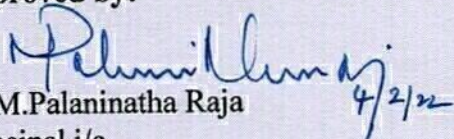
- Faculty internship and sabbatical opportunities in industries and Higher Learning Institutions are to be explored.
- IQAC team shall focus and follow-up for improving the score of metrics in NIRF ranking.
- Efforts are to be taken to improve the quantity and quality of research publications and industry collaborations.

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