

12th ACADEMIC COUNCIL MEETING

Date: 07/12/2019

Time: 10.00 A.M

Venue: Conference Hall of the Administrative Block

AGENDA

- ☞ WELCOME ADDRESS
- ☞ SPECIAL ADDRESS
- ☞ Confirmation of Minutes of 11th Academic Council Meet
- ☞ Amendments in R-2015 & R-2019 for UG Degree Programmes
- ☞ Syllabus for III year B.E. / B.Tech. Degree Programme under R-2019
- ☞ Additional one credit courses in UG degree programme under R-2015
- ☞ ANY OTHER MATTER
- ☞ VOTE OF THANKS

NATIONAL ENGINEERING COLLEGE, K.R.NAGAR, KOVILPATTI
(An Autonomous Institution – Affiliated to Anna University Chennai)



THE MINUTES OF THE 12th ACADEMIC COUNCIL

MINUTES OF THE 12th ACADEMIC COUNCIL MEETING HELD ON **07.12.2019**
AT **10.00 A.M.** IN THE CONFERENCE HALL OF ADMINISTRATIVE BLOCK, NATIONAL
ENGINEERING COLLEGE, KOVILPATTI UNDER THE CHAIRMANSHIP OF
Dr.K.KALIDASA MURUGAVEL, PRINCIPAL

The following are the academic council members:

Dr.K.Kalidasa Murugavel	Principal, National Engineering College
Academic Experts	
Dr.R.Raju	Professor / Dept. of Industrial Engg., Anna University, Chennai
Dr.D.Sriram Kumar	Professor / Dept. of ECE, NIT, Tiruchirapalli
Dr.P.Alagu Sundaramoorthy	Professor / Dept. of Civil Engineering, IITM, Chennai
Dr.Balaji Srinivasan	Professor / Dept. of Electrical Engineering, IITM, Chennai
Industrial Experts	
Dr.V.Veerappan	Cofounder & President, Tessolve Semiconductor Limited, Bangalore
Mr.M.Ganesh Thirunavukkarasu	Academic Relationship Manager – TN & P, Tata Consultancy Services Limited, Chennai
Dr.V.Narayanan	Director, LPSC, Indian Space Research Organization, Thiruvananthapuram
Mr.N.Lakshmi Narasimhan	General Manager – HR, Brakes India Private Limited, Chennai - 50
Ms.A.Bhanurekha	Principal Officer, Chola Academy, Chennai – 01
Shri. Utpal Borah	Scientist, IGCAR, Kalpakkam, Chennai
University Nominees	
Dr. S.Valli	Professor / Dept. of CSE, Anna University, Chennai

Dr. Ranjani Parthasarathy	Professor / Dept. of IST, Anna University, Chennai
Dr.R.Saravanan	Professor / Dept. of Mechanical Engg., Anna University, Chennai
Special Invitees	
Dr.P.Lakshmi	Professor / Dept. of EEE, Anna University, Chennai
Dr.S.Shanmugavel	Director, National Engineering College
Dr.V.Seenivasagam	Controller of Examinations, National Engineering College
Internal Members	
Dr. S.Tamil Selvi	Dean (Academic) & Prof. / ECE, National Engg. College
Dr.M.A.Neelakantan	Dean (R&D) & Head / S & H, National Engineering College
Dr.K.G.Srinivasagan	Dean (TCP) & Prof. / CSE, National Engineering College
Dr.K.Manisekar	Prof. & Head / Mechanical, National Engineering College
Dr.A.Shenbagavalli	Prof. & Head / ECE, National Engineering College
Dr.V.Gomathi	Prof. & Head / CSE, National Engineering College
Dr.M.Willjuice Iruthayarajan	Prof. & Head / EEE, National Engineering College
Dr.I.Jackson Daniel	Prof. & Head / EIE, National Engineering College
Dr.D.Manimegalai	Prof. & Head / IT, National Engineering College
Dr.C.Puthiyasekar	Prof. & Head / Civil, National Engineering College
Dr.D.Ravindran	Prof. / Mechanical, National Engineering College
Dr. S.Rammurthy	Prof. / Mathematics, National Engineering College
Dr.L.Kalaivani	Prof. / EEE, National Engineering College
Ms. R.Rajakumari	Asst. Prof. (SG) / CSE, National Engineering College
Student Members	
Mr. Ahmad	Third year Mechanical
Mr. M.Vigneshwaran	Final year ECE
Ms. J.Janofer Ibrahima	Final year CSE
Mr. M.Pandaravel Kannan	Final year EEE
Ms. M.Meera	Final year EIE
Mr. S.Vishal Balaji	Final year IT
Ms. K.Suhaachine	Final year Civil

The University Nominee member **Dr.Ranjani Parthasarathy**, Professor / IST, Anna University, Chennai, **Dr.R.Saravanan**, Professor / Mechanical Engineering, Anna University, Chennai, Industrial Expert Members **Dr.V.Narayanan**, Director, LPSC, Indian Space Research Organization, Thiruvananthapuram, **Mr.M.Ganesh Thirunavukkarasu**, Academic Relationship Manager – TN&P, Tata Consultancy Services, Chennai and Academic Expert members **Dr.P.Alagu Sundaramoorthy**, Professor / Civil Engineering, IITM, Chennai and **Dr.Balaji Srinivasan**, Professor / Electrical Engineering, IITM, Chennai could not attend the meeting due to their prior commitments and unavoidable circumstances.

The meeting began with the welcome address by the Principal, Chairman, Academic Council, National Engineering College. He outlined briefly the various agenda items to be presented at the meeting. He also described the various committees and academic meetings held to formulate the amendments of Regulations 2015 and 2019 for UG degree programmes, syllabus for third year UG degree Programmes including elective courses to be offered under Regulation 2019. After the formal welcome, he requested the Director to deliver the Special Address.

The Director while addressing the Council, highlighted the designing of regulation, curriculum and syllabus under Regulation 2019. Following the address by the Director, the Dean (Academic) moved the following agenda items on behalf of the Principal.

The following agenda items are considered and approved by the 12th Academic Council

DA 12.01 TO CONFIRM THE MINUTES OF ELEVENTH ACADEMIC COUNCIL MEETING HELD ON 29th JUNE 2019

The minutes of the **11th Academic Council meeting** held on **29/06/2019** were communicated to the members vide **Email dated 17/07/2019**. The comments received have been incorporated and placed for confirmation. The same was approved by the council.

- **Minutes of 11th Academic Council**
- **Action taken report for minutes of 11th Academic Council**

DA 12.02 TO CONSIDER AND APPROVE THE AMENDMENTS TO CLAUSE 6.4, 6.10.2, 11.5 AND 12.7 OF REGULATIONS 2015 and REGULATIONS 2019 FOR UG DEGREE PROGRAMMES OF NATIONAL ENGINEERING COLLEGE

RESOLVED TO APPROVE the amendments to Clause 6.4, 6.10.2, 11.5 and 12.7 of Regulations 2015 and Regulations 2019 for UG degree programmes of National Engineering College

➤ **AMENDMENTS OF REGULATIONS FOR UG (R-2015 & R-2019)**

DA 12.03 TO CONSIDER AND APPROVE THE SPECIAL PERMISSION TO CONDUCT ELECTIVE COURSES WITH LESS THAN 10 STUDENTS TO EARN EXTRA CREDITS FOR 6 STUDENTS FROM B.E. CIVIL ENGINEERING REGARDING HIGHER STUDIES ABROAD (CLAUSE 6.9) UNDER REGULATION 2015

RESOLVED TO APPROVE the special permission to conduct elective courses with less than 10 students under Regulation 2015.

➤ **STUDENTS LETTER**

BUSINESS BROUGHT FORWARD BY THE BOARD OF STUDIES

AGENDA FROM DEPARTMENT OF MECHANICAL ENGINEERING

The Standing Committee of the Academic Council recommends, **Dr. K.Manisekar, Chairman, Mechanical Engineering** moves the following items based on the decision of the Board of Studies in Mechanical Engineering.

ME 12.01 TO CONSIDER AND APPROVE THE SYLLABUS OF PROFESSIONAL CORE COURSES IN THIRD AND FINAL YEAR UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2019

RESOLVED TO APPROVE the syllabus of professional core courses in third and final year UG degree programme to be offered under R-2019

➤ **B.E. MECHANICAL – Third and Final year Syllabus**

ME 12.02 TO CONSIDER AND APPROVE THE LIST OF OPEN ELECTIVE AND PROFESSIONAL ELECTIVE COURSES FOR UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2019

RESOLVED TO APPROVE the list of open elective and professional elective courses for UG degree programme to be offered under R-2019

➤ **B.E. MECHANICAL – LIST OF COURSES**

ME 12.03 TO CONSIDER AND APPROVE THE LIST OF ONLINE COURSES FOR CREDIT TRANSFER UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2019

RESOLVED TO APPROVE the list of online courses for credit transfer UG degree programme to be offered under **R-2019**

➤ **B.E. MECHANICAL – LIST OF COURSES**

AGENDA FROM DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

The Standing Committee of the Academic Council recommends, **Dr.A.Shenbagavalli, Chairman, Electronics and Communication Engineering** moves the following items based on the decision of the Board of Studies in Electronics and Communication Engineering.

EC 12.01 TO CONSIDER AND APPROVE THE THIRD YEAR SYLLABUS FOR UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2019

RESOLVED TO APPROVE the third year syllabus for UG degree programme to be offered under R-2019

➤ **B.E. ECE – Third year Syllabus**

EC 12.02 TO CONSIDER AND APPROVE THE ADDITIONAL ONE CREDIT COURSE SYLLABUS FOR UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2015

RESOLVED TO APPROVE the additional one credit course syllabus for UG degree programme to be offered under R-2015

➤ **B.E. ECE - One Credit Course Syllabus**

EC 12.03 TO CONSIDER AND APPROVE THE ADDITIONAL ELECTIVE COURSE SYLLABUS FOR PG DEGREE PROGRAMME TO BE OFFERED UNDER R-2019

RESOLVED TO APPROVE the additional elective course syllabus for PG degree programme to be offered under R-2019

➤ **M.E. EST - Elective Course Syllabus**

AGENDA FROM DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

The Standing Committee of the Academic Council recommends, **Dr. V.Gomathi, Chairman, Computer Science and Engineering** moves the following items based on the decision of the Board of Studies in Computer Science and Engineering.

CS 12.01 TO CONSIDER AND APPROVE THE THIRD YEAR SYLLABUS FOR UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2019

RESOLVED TO APPROVE the third year syllabus for UG degree programme to be offered under R-2019

➤ **B.E. CSE – Third year Syllabus**

CS 12.02 TO CONSIDER AND APPROVE THE ADDITIONAL ONE CREDIT COURSE SYLLABUS FOR UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2015

RESOLVED TO APPROVE the additional one credit course syllabus for UG degree programme to be offered under R-2015

➤ **B.E. CSE – One credit course syllabus**

AGENDA FROM DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

The Standing Committee of the Academic Council recommends, **Dr. M.Willjuice Iruthayarajan, Chairman, Electrical and Electronics Engineering** moves the following items based on the decision of the Board of Studies in Electrical and Electronics Engineering.

EE 12.01 TO CONSIDER AND APPROVE THE THIRD YEAR SYLLABUS FOR UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2019

RESOLVED TO APPROVE the third year syllabus for UG degree programme to be offered under R-2019

➤ **B.E. EEE – Third year Syllabus**

EE 12.02 TO CONSIDER AND APPROVE THE ELECTIVE COURSE SYLLABUS FOR UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2019

RESOLVED TO APPROVE the elective course syllabus for UG degree programme to be offered under R-2019

➤ **B.E. EEE – Elective Course Syllabus**

AGENDA FROM DEPARTMENT OF INFORMATION TECHNOLOGY

The Standing Committee of the Academic Council recommends, **Dr. D.Manimegalai, Chairman, Information Technology** moves the following items based on the decision of the Board of Studies in Information Technology.

IT 12.01 TO CONSIDER AND APPROVE THE THIRD, FINAL YEAR SYLLABUS INCLUDING ELECTIVE COURSES FOR UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2019

RESOLVED TO APPROVE the third, final year syllabus including elective courses for ug degree programme to be offered under R-2019

➤ **B.Tech. IT – Syllabus**

AGENDA FROM DEPARTMENT OF CIVIL ENGINEERING

The Standing Committee of the Academic Council recommends, **Dr.C.PUTHIYA SEKAR, Chairman, Civil Engineering** moves the following items based on the decision of the Board of Studies in Civil Engineering.

CE 12.01 TO CONSIDER AND APPROVE THE THIRD YEAR SYLLABUS FOR UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2019

RESOLVED TO APPROVE the third year syllabus for UG degree programme to be offered under R-2019

➤ **B.E. – CIVIL Third year Syllabus**

CE 12.02 TO CONSIDER AND APPROVE THE CURRICULUM OF ONE CREDIT AND OPEN ELECTIVE COURSES FOR UG DEGREE PROGRAMME TO BE OFFERED UNDER R-2019

RESOLVED TO APPROVE the curriculum of one credit and open elective courses for UG degree programme to be offered under **R-2019**



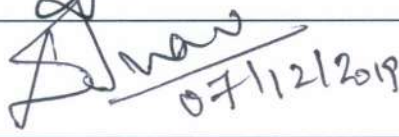



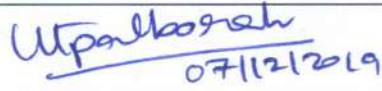






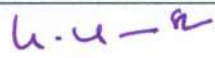

➤ **B.E. – CIVIL One credit courses**

ANY OTHER ITEMS, WITH THE PERMISSION OF THE CHAIRMAN OF THE ACADEMIC COUNCIL

Points suggested by the Academic Council

1. Members suggested that same curriculum structure may be followed for all the programmes.
2. One credit courses may be offered by industry to reflect the industrial need.
3. For Mechanical Engineering, Advanced Mathematics course may be renamed.
4. For Mechanical Engineering, Drone related papers may be included in the curriculum.
5. For Mechanical Engineering, in Open Elective-IV category, the Financial and Managerial Accounting may be renamed as Accounting for Engineers.
6. For Mechanical Engineering, the open elective Engineering Biology may be renamed as Biology for Engineers.
7. In ECE, industrial training may be needed for faculty to teach 5G wireless technology courses.
8. For CSE, Instead of Health Information Systems, Lab Information System may be included
9. For CSE, Priority may be given to ERP and SAP.
10. For CSE, the course on Block chain technology may be included.
11. For EEE, domain based grouping needed for elective courses.
12. For EEE, Energy storage and battery management may be included in syllabus
13. Intelligent electronics may be included in curriculum.
14. For ECE, in wireless communication course, a topic on Li-Fi may be included.
15. PCB design may be included in the curriculum.
16. For CIVIL Engineering, Metro construction and tunnelling concept may be included in the curriculum.
17. The members suggested to include the course of design thinking in the curriculum.
18. The members suggested that additional credit details may be included in student's Mark statement.
19. Tech-Talk culture may be motivated among the students and faculty.
20. For coding practice and to improve problem solving skill, Topcoder website may be used.
21. Industry experts expressed their willingness to sponsor their engineers for studying PG courses in different programmes in part time mode. They have requested the institution to explore the possibility and approach the University for necessary permission.

Members Present

Dr.K.Kalidasa Murugavel Academic Council Chairman National Engineering College	
Academic Experts	
Dr.R.Raju Professor / Dept. of Industrial Engg., Anna University, Chennai	
Dr.D.Sriram Kumar Professor / Dept. of ECE, NIT, Tiruchirapalli	 07/12/2019
Industrial Experts	
Dr.V.Veerappan Cofounder & President, Tessolve Semiconductor Limited, Bangalore	
Ms.A.Bhanurekha Principal Officer, Chola Academy, Chennai	
Mr.N.Lakshmi Narasimhan General Manager – HR, Brakes India Private Limited, Chennai	 7/12/19
Shri. Utpal Borah Scientist, IGCAR, Kalpakkam, Chennai	 07/12/2019
University Nominees	
Dr. S.Valli Professor / Dept. of CSE, Anna University, Chennai	
Special Invitees	
Dr. P.Lakshmi Professor / Dept. of EEE, Anna University, Chennai	 7/12/19
Dr.S.Shanmugavel Director	
Dr.V.Seenivasagam Controller of Examinations	 7/12/19
Internal Members	
Dr.S.Tamil Selvi Prof. & Dean (Academic)	 7/12/19
Dr.M.A.Neelakantan Dean (R&D) & Head / S & H	 7/12/19
Dr.K.G.Srinivasagan Dean (TCP) & Prof. / CSE	
Dr.K.Manisekar Prof. & Head / Mechanical Engg.	 7/12/19
Dr.A.Shenbagavalli Prof. & Head / ECE	 7/12/19

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Dr.V.Gomathi Prof. & Head / CSE	V. Gomathi
Dr.M.Willjuice Iruthayarajan Prof. & Head / EEE	M. Willjuice Iruthayarajan
Dr. I.Jackson Daniel Prof. / EIE	I. Jackson Daniel
Dr.D.Manimegalai Prof. & Head / IT	D. Manimegalai
Dr.C.Puthiyasekar Prof. & Head / Civil	C. Puthiyasekar
Dr.D.Ravindran Prof. / Mechanical	D. Ravindran
Dr. S.Rammurthy Prof. / Mathematics	S. Rammurthy
Dr.L.Kalaivani Prof. / EEE	L. Kalaivani
Ms.R.Rajakumari Asst. Prof.(SG) / CSE	R. Rajakumari
Student Members	
Mr. Ahmad Third year Mechanical	Ahmad
Mr. M.Vigneshwaran Final year ECE	M. Vigneshwaran
Ms. J.Janofer Ibrahimia Final year CSE	J. Janofer Ibrahimia
Mr. M.Pandaravel Kannan Final year EEE	M. Pandaravel Kannan
Ms. M.Meera Final year EIE	M. Meera
Mr. S.Vishal Balaji Final year IT	S. Vishal Balaji
Ms. K.Suhaachine Final year Civil	K. Suhaachine


 CHAIRMAN
 ACADEMIC COUNCIL

National ENGINEERING COLLEGE, K.R.NAGAR, KOVILPATTI*(An Autonomous Institution – Affiliated to Anna University Chennai)***Actions Taken Report on Minutes of 11th Academic Council Meeting**

S. No.	Action Initiated	Action Taken
1.	Amendments to Clause 6.9, 14.0 (i), 15.1 and 15.1 (ii) of Regulations 2015 for UG degree programmes	Implemented
2.	Amendments to Clause 15.1 and 15.1 (ii) of Regulations 2019 for UG degree programmes	Implemented
3.	Rules for Examination and Evaluation of UG and PG Programmes	Implemented
4.	Members suggested that the question papers for end semester examination may be set by Internal faculty for all the subjects and from External faculty for randomly selected subjects. The controller can opt any one question paper for the end semester examination. The question setter should prepare the answer key also. Members appreciated the efforts taken by the college to show the answer sheets to the students before the declaration of results.	Implemented
5.	The elective courses may be grouped based on domain for all the programmes	Implemented
6.	For B.E. - CSE, application level exercises may be given for Object oriented programming laboratory	Implemented
7.	For Environmental Science and Engineering course, 3 hours lecture should be given. This is to be followed for all the mandatory courses	Implemented
8.	For B.E. - EEE, Mathematics course, Mathematical logic unit may be removed and accordingly the syllabus may be revised	Implemented
9.	For B.Tech. - IT, Syllabus for Information Technology Essentials course may be modified and shifted to 4 th semester and Principles of Data Communication course may be shifted to 3 rd semester	Implemented
10.	For B.E. – Civil, Survey courses and Applied Hydraulics course tutorial hours may be converted into lecture hours	Implemented

**CHAIRMAN
ACADEMIC COUNCIL**

AMENDMENTS IN R-2015 & R-2019 (12th Academic Council Meeting on 07.12.2019)

UNDER GRADUATE DEGREE PROGRAMMES	
Existing UG R-2015 & R-2019	Amended UG R-2015 & R-2019
<p>6.0 REGISTRATION</p> <p>6.4 If the theory course in which the student has failed / has been prevented from writing end semester examination due to lack of attendance in a programme elective course or an open elective, then the student may register for the same or any other professional elective or open elective course respectively in the subsequent semesters.</p>	<p>6.0 REGISTRATION</p> <p>6.4 If the theory course in which the student has been prevented from writing end semester examination due to lack of attendance in a programme elective course or an open elective, then the student may register for the same or any other professional elective or open elective course respectively in the subsequent semesters during the minimum period of study. However, if the students are unable to complete the courses within the minimum said duration, they shall register their courses in the subsequent academic year irrespective of Odd or Even semester. However, the maximum credits in a semester should not exceed 30.</p>
<p>6.10 Flexibility to Add or Drop Courses</p> <p>6.10.2 From the third to eighth semester, the student has the option of registering for additional courses or dropping existing courses. Total number of credits of such courses cannot exceed 6. However, the student shall register for a minimum of 16 credits and a maximum of 30 credits in a semester.</p>	<p>6.10 Flexibility to Add or Drop Courses</p> <p>6.10.2 From the third to eighth semester, the student has the option of registering for additional courses or dropping existing courses. However, the student shall register for a minimum of 12 credits and a maximum of 30 credits in a semester.</p>

UNDER GRADUATE DEGREE PROGRAMMES

Existing UG R-2015 & R-2019	Amended UG R-2015 & R-2019
<p>11.0 SYSTEM OF EXAMINATION AND ASSESSMENT PROCEDURE</p> <p>11.5 The End Semester Examination for the project work shall consist of evaluation of the final report submitted by the student or students of the project group (of not exceeding 4 students) by an external examiner followed by a viva-voce examination conducted separately for each student by a committee consisting of the External examiner, Internal examiner and Guide.</p>	<p>11.0 SYSTEM OF EXAMINATION AND ASSESSMENT PROCEDURE</p> <p>11.5 The End Semester Examination for the mini project / project work shall consist of evaluation of the final report submitted by the student or students of the project group (of not exceeding 4 students) by an external examiner followed by a viva-voce examination conducted separately for each student by a committee consisting of the External examiner, Internal examiner and Guide.</p>
<p>12.7 Internship / Industrial Training / Mini Project</p> <p>The Industrial/Practical Training, Internship shall carry 100 marks and shall be evaluated through Internal assessment only. At the end of Industrial / Practical training / Internship, the candidate shall submit a certificate from the organization where he/she has undergone training and a brief report. The evaluation will be made based on the report and a viva-voce examination conducted internally by a three member Departmental Committee constituted by the Head of the Department. The certificate (issued by the organization) submitted by the students shall be attached to the mark list and sent to the Controller of Examinations.</p>	<p>12.7 Internship / Industrial Training</p> <p>The Industrial / Practical Training, Internship shall carry 100 marks and shall be evaluated through Internal assessment only. At the end of Industrial / Practical training / Internship, the candidate shall submit a certificate from the organization where he/she has undergone training and a brief report. The evaluation will be made based on the report and a viva-voce examination conducted internally by a three member Departmental Committee constituted by the Head of the Department. The certificate (issued by the organization) submitted by the students shall be attached to the mark list and sent to the Controller of Examinations.</p>