



**Minutes of the 44th Meeting of the Senate of
National Institute of Technology, Tiruchirappalli held on
30th May 2019 at 11.00 AM in A13 Hall, NIT, Tiruchirappalli**

The following Members were present in the Meeting:

1.	Dr. Mini Shaji Thomas	Chairperson
2.	Dr. K. Ramamurthy	External Member
3.	Dr. S. Shanmugam	Member
4.	Dr. P. J. A. Alphonse	Member
5.	Dr. N. Ammasai Gounden	Member
6.	Dr. R. B. Anand	Member
7.	Dr. S. Anandan	Member
8.	Dr. N. Anantharaman	Member
9.	Dr. M. Arivazhagan	Member
10.	Dr. S. Arul Daniel	Member
11.	Dr. G. Arthanareeswaran	Member
12.	Dr. P. Asokan	Member
13.	Dr. A. K. Bakthavatsalam	Member
14.	Dr. S. R. Balasundaram	Member
15.	Dr. K. Baskar	Member
16.	Dr. M. Bhaskar	Member
17.	Dr. D. Deivamoney Selvam	Member
18.	Dr. K. Dhanalakshmi	Member
19.	Dr. M. Duraiselvam	Member
20.	Dr. N. Gopalakrishnan	Member
21.	Dr. N. P. Gopalan	Member
22.	Dr. J. Hemalatha	Member
23.	Dr. T. N. Janakiraman	Member
24.	Dr. P. Jayabalan	Member
25.	Dr. P. Kalaichelvi	Member
26.	Dr. R. Karvembu	Member
27.	Dr. P. A. Krishnan	Member
28.	Dr. S. Kumanan	Member
29.	Dr. S. Kumaran	Member
30.	Dr. V. Kumaran	Member

31.	Dr. N. Kumaresan	Member
32.	Dr. S. P. Kumaresh Babu	Member
33.	Dr. Mary Saira Bhanu	Member
34.	Dr. K. M. Meera S. Begum	Member
35.	Dr. S. Moses Santhakumar	Member
36.	Dr. K. Murugesan	Member
37.	Dr. R. Murugesan	Member
38.	Dr. P. Muthuchidambaranathan	Member
39.	Dr. K. Muthukkumaran	Member
40.	Dr. K. Muthukumar	Member
41.	Dr. C. Nagamani	Member
42.	Dr. S. Natarajan	Member
43.	Dr. S. Nickolas	Member
44.	Dr. R. Ponalagusamy	Member
45.	Dr. T. K. Radhakrishnan	Member
46.	Dr. S. Raghavan	Member
47.	Dr. B. Ramadoss	Member
48.	Dr. Ramakalyan Ayyagari	Member
49.	Dr. S. Raman Sankaranarayanan	Member
50.	Dr. N. Ramasubramanian	Member
51.	Dr. S. T. Ramesh	Member
52.	Dr. V. Ravi Chandran	Member
53.	Dr. Samson Mathew	Member
54.	Dr. J. Sarat Chandra Babu	Member
55.	Dr. P. Sathiya	Member
56.	Dr. V. J. Sivakumar	Member
57.	Dr. N. Sivakumaran	Member
58.	Dr. S. P. Sivapirakasam	Member
59.	Dr. P. Sivashanmugam	Member
60.	Dr. T. Srinivas	Member
61.	Dr. D. Sriram Kumar	Member
62.	Dr. G. Subbaiyan	Member
63.	Dr. S. Sudha	Member
64.	Dr. G. Swaminathan	Member
65.	Dr. M. Umopathy	Member

66.	Dr. B. Vasuki	Member
67.	Dr. S. Venkatachalapathy	Member
68.	Dr. B. Venkataramani	Member
69.	Dr. V. Vinod Balakrishnan	Member
70.	Shri. A. Palanivel	Secretary
71.	Dr. P. Saikrishnan	Special Invitee
72.	Dr. P. Sridevi	Special Invitee
73.	Dr. T. Ramesh	Special Invitee
74.	Dr. V. Arul Mozhi Selvan	Special Invitee
75.	Dr. R. Gandhimathi	Special Invitee

The following members expressed their inability to attend the meeting:

76.	Dr. G. C. Anupama	External Member
77.	Dr. Gurumurthy Neelakandan	External Member
78.	Dr. A. Chandra Bose	Member
79.	Dr. R. Jeyapaul	Member
80.	Dr. G. Lakshmi Narayanan	Member
81.	Dr. R. Leela Velusamy	Member
82.	Dr. V. Muthupandi	Member
83.	Dr. P. Palanisamy	Member
84.	Dr. M. Premalatha	Member
85.	Dr. B. Ravisankar	Member
86.	Dr. D. Sastikumar	Member
87.	Dr. T. Srinivasa Rao	Member
88.	Dr. N. Thamaraiselvan	Member
89.	Dr. M. Udayakumar	Member
90.	Dr. G. Uma	Member
91.	Dr. S. Velmathi	Member
92.	Dr. K. Viswanathan Iyer	Member
93.	Dr. Rajeswari Sridhar	Special Invitee

The following members did not attend the meeting:

94.	Dr. L. Cindrella	Member
95.	Dr. C. Mala	Member
96.	Dr. Michael Arock	Member

97.	Dr. C. Natarajan (On Medical Ground)	Member
98.	Dr. M. Punniyamoorthy	Member
99.	Dr. K. Sundareswaran	Member
100.	Dr. AR. Veerappan	Member
101.	Dr. R. Joseph Ponniah	Special Invitee

The Secretary, Senate welcomed the members to the 44th Meeting of Senate and having ensured a quorum, continued with the Senate proceedings.

The Chairperson welcomed the members including the external member, Prof. K. Ramamurthy, IIT Madras for his participation in the 44th Meeting of the Senate. In her opening remarks, the Chairperson briefed the Senate about the recent accomplishments of the Institute. The Chairperson commended the efforts of NIT, Tiruchirappalli on being ranked 10th among all the technical institutes and first among all the NITs in the country by the NIRF India Rankings 2019, moving up to 24th position from 31st, pertaining to the overall ranking.

The Chairperson emphasized the improvements in its scores for teaching, learning & resources, industry-academia collaborations, outreach and perception. She also appreciated the Department of Architecture and Department of Management Studies for securing 7th and 17th Rank respectively in NIRF 2019 in the respective category. She congratulated all the stakeholders for this remarkable achievements.

The chairperson highlighted the following:

- Institute Day 2019 was celebrated on 16th April 2019. Padma Shri Prof. Deepak B. Phatak, Subrao Nilekani Chair Professor, IIT-Bombay, was the chief guest.
- Faculty members, students and staffs were felicitated during Institute Day. Mechanical and Production Engineering Departments were awarded as the best departments under Engineering category whereas Department of Chemistry was awarded best under Non-Engineering category, following the same criteria as NIRF 2019.
- Institute was awarded with 11 sponsored projects under Scheme for Promotion of Academic and Research Collaboration (SPARC).
- NIT, Tiruchirappalli signed MOU with ISRO- S-TIC (Space-Technology Incubation Centre) as the incubator catering to 6 South Indian States.

- 5 M.Tech. programmes (Environmental Engineering, Industrial Metallurgy, Manufacturing Technology, VLSI System and NDT) got accredited by National Board of Accreditation.

The Chairperson mentioned the recent promotions given to 28 Professors as Higher Administrative Grade. Also, Non-Teaching staff promotions are given in line with Recruitment Rule 2019 through mapping and Departmental Promotion committee.

The Chairperson added highlighting that NIT Tiruchirappalli had been chosen as the Coordinating institute for CSAB 2019 along with IIT Roorkee as JoSAA co-ordinator for the conduct of admissions to premier institutes in the country. She also cited the Farewell function given to B.Tech. passed out batch from this academic year onwards. The Chairperson also briefed the strategic plan 2019-24 and seeks the support of all stakeholders to bring our institute to be in the top 500 Institutions in the world.

Following the welcome address by the Chairperson, Registrar started the deliberations on the agenda items.

1. Confirmation of the Minutes of 43rd Meeting of the Senate held on 22nd March 2019

The Senate resolved to confirm the minutes of the 43rd Meeting of the Senate.

RESOLUTION RESOLVED THAT the Minutes of 43rd Meeting of 44/SENATE/2019/1 Senate held on 22nd March 2019 be confirmed.

2. Action Taken Report on the decisions of the 43rd Meeting of the Senate

The Action Taken Report on the 43rd Meeting of the Senate was discussed and the Senate observed the following.

a. 43/SENATE/2019/2

(Reference:40/SENATE/2018/7)

ATR:

(ii). SWIR11: NSS/NCC/NSO shall be one credit. The weightage for attendance and performance shall be reviewed.

(iii). The title of the course for the subjects "MAIR11 Mathematics - I" and "MAIR21 Mathematics II" shall be modified based on course contents.

The senate was informed that as per the revised B.Tech. curriculum structure, the course titled "SWIR11 NSS/NCC/NSO" shall be treated as compulsory participation and the mooted points regarding the courses "SWIR11 NSS/NCC/NSO" "MAIR11 Mathematics - I" and "MAIR21 Mathematics - II" shall be

- (iv). *Learning objectives of course titled MAIR21 Mathematics - II shall be reviewed and modified by considering all the branches of Engineering.*
- b. **43/SENATE/2019/2**
(Reference: 40/SENATE/2018/11)
ATR: M. S. (by Research) scholars (sponsored by BHEL) seeking resumption of the M. S.(by Research) programme
- c. **43/SENATE/2019/2**
(Reference: 41/SENATE/2018/3)
ATR: The Senate directed the Department to conduct the Board of Studies to confirm the semester (8th / 9th Semester) in which the practical training can be conducted.
- d. **43/SENATE/2019/3**
Revision of Seat matrix with reservation for Economically Weaker Sections (EWS) as per the revised OM
- e. **43/SENATE/2019/5**
Modified seat matrix for M. Tech. (Energy Engineering)
- included in the agenda for the forthcoming BoS meeting for GIR courses and subsequently the recommendations shall be placed in the next Senate meeting.
- The Senate approved the recommendations of GTC for the resumption of M.S. (by Research) scholars. The research supervisors of the remaining two scholars are directed to conduct the GTC immediately.
- The Department of Architecture was requested to conduct the Board of Studies immediately.
- The Senate noted that the PG expert committee has been informed to review the existing PG programmes that requires revision and re-orientation before the implementation of EWS for PG programmes. Besides, the proposal of new PG programmes that have undergone the selection process during the IoE proposal can also be reviewed with appropriate subject experts.
- The Senate was informed about the seat allocation for NIT, Tiruchirappalli as approved by MHRD and noted the seat matrix for UG programmes submitted to the CSAB 2019.
- The Department of Energy and Environment was requested to provide the reasons for not considering all branches of Engineering by proper mapping of the existing subjects or advised to include more subjects so that the other branches of Engineering shall be part of M.Tech. Energy Engineering.

- f. **43/SENATE/2019/6/ Item (ii)** The Senate was informed that an institute level committee has been constituted by Dean (Academic) to review the existing guidelines for admission into all Ph. D. programmes in the institute.
- Revised eligibility criteria need to be considered for admission into Ph.D. programme in Department of Management Studies*

RESOLUTION RESOLVED THAT the action taken on the decisions of 44/SENATE/2019/2 43rd Meeting of the Senate be noted and approved.

Approval Items

3. Results of UG and PG courses in the even semester 2018-19

The Senate approved the results of UG and PG courses for the even semester 2018-19 as approved by the respective Performance Analysis Committees (PACs).

The Senate noted that more number of "S" grades in some courses and directed the PACs to be more proactive and adhere to the regulations for the award of "S" grades and other stipulations in the regulations.

The Senate directed the Dean (Academic) to refine the rules and regulations for UG, PG and Ph.D. programmes.

RESOLUTION RESOLVED THAT the results of even semester UG and 44/SENATE/2019/3 PG courses 2018-19 as approved by the respective PACs be approved with the above mentioned observations.

FURTHER RESOLVED THAT the rules and regulations for UG, PG and Ph.D. programmes be refined by Dean (Academic) office.

4. Recommendations of Academic Reforms Committee

a. Revision of B.Tech. curriculum structure

The Chairperson highlighted the importance of revision of B.Tech. curriculum structure and the Dean (Academic) presented the recommendations of Academic Reforms Committee.

The Senate discussed the matter at length and approved the following:

- i. The total number of credits for B. Tech. programme would be 160±3.

- ii. The number of programme core (PC) courses and elective courses (PE / OE) shall be 15 and 14 respectively (Table 1).
- iii. Out of 14 elective courses (PE/OE), the students should study at least eight programme elective courses (PE).
- iv. **MI** – Minor Degree: 15 credits over and above the minimum credit as specified by the departments. The details of MINOR will be mentioned only in the transcript not in the Degree certificate.
- v. **HO** – Honours Degree: 15 credits over and above the minimum credit as specified by the departments. The project work is compulsory.
- vi. Due weightage shall be given to those students who won the prizes in curriculum related projects in the national / international level.

Table 1 Credits distribution for revised B. Tech. curriculum structure

Course Category	Proposal		
	Courses	No. of Credits	Weightage (%)
GIR	20	50	31.25
PC	15	49 – 55*	32.50
Electives (PE / OE)	14	42	26.25
ELR	Maximum 2 per session up to 6 th semester	16	10
Total		160 ±3	100
Minor (Optional)	Courses for 15 credits	15 Additional credits	-
Honours (Optional)	Courses for 15 credits	15 Additional credits	-

*(*Minimum of 4 programme core courses shall be 4 credits each)*

- vii. The project work be made optional. The students can do project work either inside or outside the institute. If the project work (6 credits) is completed in the department, it will be considered as equivalent to two programme elective courses (six credits). If the project is completed in industries, it will be considered as equivalent to two open elective courses (six credits) or two program elective courses (six credits). The evaluation for such project works will be done in the department concerned.

The Senate noted the observations of Heads of Departments of Physics and Chemistry, that the number of GIR courses for Physics and Chemistry may be retained as 2 inclusive of laboratory with total credits of 6 each.

The Senate directed the Academic Reforms Committee to discuss the General Institute requirement courses with an additional input from Engineering Departments and subsequently the same shall be submitted to the Senate for approval.

Further, the Senate suggested the Dean (Academic) to constitute an institute level committee to decide the equivalent credits for curriculum related projects in the national / international level.

RESOLUTION **RESOLVED THAT** the revised curriculum 44/SENATE/2019/4/ item (a) structure (credit requirements) as recommended by Academic Reforms committee be approved with above mentioned observations of the Senate.

b. Award of Honours and Minor degree

The Senate approved the recommendations of ARC with few modifications for the Award of Honours and Minor degree as presented in Table 2.

Table 2 Norms for Honours and Minor Degree Requirements

Existing	New norms as per Senate approval
Honours Degree	
a. Registered at least for 12 theory courses and 2 ELRs in the second year.	a. Registered at least for 12 theory courses and 2 ELRs in the second year.
b. Consistently obtained a minimum GPA of 8.5 in the first four sessions.	b. Consistently obtained a minimum CGPA of 8.5 in the first four sessions.
c. Continue to maintain the same GPA of 8.5 in the subsequent sessions (excluding the Honours courses)	c. Consistently maintain a minimum CGPA of 8.5 in all sessions excluding honours courses.
d. Completed 3 additional theory courses specified for the Honours degree of the programme and should have an aggregate of B grade in Honours courses.	d. Additional courses for 15 credits shall be successfully completed by a student in order to earn the Honours degree. Maintaining an aggregate of at least B grade in Honours courses is mandatory.
e. Students can register a maximum of five Honours courses, of which best three scored subjects are considered for awarding Honours degree	e. The project work is compulsory for B. Tech. (Honours) degree.

	<p>f. The Honours courses shall be distinct, a level above the PC and PE courses, preferably M. Tech. courses.</p> <p>g. Honours courses shall not be treated as programme elective under any circumstances.</p> <p>h. Grades obtained in honours shall never be considered for CGPA calculations.</p>
Minor Degree	
<p>a. To earn a Minor degree, a student shall complete at least five minor electives on a given subject other than his/her branch of study. It is also possible to choose assorted electives in which case the student does not earn a particular minor.</p> <p>b. There will be no mention of Minor in Degree Certificate, however, it will be mentioned in the transcript.</p>	<p>a. A student may complete five minor subject electives from other branch of study. It will be mentioned in the transcript as additional courses.</p> <p>b. It will be mentioned only in the transcript and there will be no mention of Minor in Degree Certificate.</p>

RESOLUTION

44/SENATE/2019/4/ item (b)

RESOLVED THAT the revised norms for obtaining Honours Degree and Minors Degree be approved with few modifications.

c. Online courses for UG programmes

To encourage the student's participation in internships (India / Abroad) more than two months and semester exchange programmes with other academic institutions, ARC has recommended to increase the number of credits of online courses to 20 from 12 so that the students could complete the credit requirements through online mode for programme electives, open electives and minor courses.

The Senate observed that increase the number of credits of online courses to 20 from 12 are high for B. Tech. programmes. Hence, the Senate recommended to continue the existing norms for online courses.

RESOLUTION

44/SENATE/2019/4/ item (c)

RESOLVED THAT the existing norms of up to 12 credits for online courses will continue.

d. Conduct of regular courses in summer session

To encourage the students to participate in semester exchange programmes and to do accelerated learning, ARC recommends to offer the open and minor elective courses in summer session.

The Senate suggested that the summer session will be effectively utilised exclusively for research purposes instead of offering summer courses.

RESOLUTION

RESOLVED THAT the proposal for conduct of regular courses in summer session be dropped.

44/SENATE/2019/4/ item (d)

e. Conduct of project review / comprehensive / viva-voce examinations / DC meetings / BoS meetings

The committee has recommended the conduct of project review, comprehensive / viva-voce for students, the external examiners / external guides to conduct the same, the external members of DC meetings and the experts of BoS meetings for all UG/PG/ Ph. D. programmes concerned through video conferencing mode.

The Senate approved the conduct of project review / comprehensive / viva-voce examinations / DC meetings / BoS meetings through video conferencing mode except comprehensive / project work for UG programmes.

Further, the Senate opined that the external expert shall be excluded from the comprehensive viva-voce examination panel for B. Tech. programmes.

RESOLUTION

RESOLVED THAT the conduct of project review / comprehensive / viva-voce examinations / DC meetings / BoS meetings through video conferencing mode except comprehensive / project work for UG programmes be approved.

44/SENATE/2019/4/ item (e)

FURTHER RESOLVED THAT the exclusion of external expert from the comprehensive viva-voce examination panel for B.Tech. programmes. This is applicable for all batches.

f. Composition of Ph. D. viva-voce examination board

The Senate approved the Ph. D. viva-voce examination board as recommended by ARC (Table 3). This is applicable for all batches.

Table 3 Composition of Ph. D. viva-voce examination board

1. Chairperson of Doctoral Committee – Chair person
2. Research Guide - Member
3. Co-guide (if any) - Member
4. The examiner of the thesis from Member within the country, or a specialist in the subject nominated by the Chairperson, Senate or Dean (Academic) from the panel of examiners approved by the DC
5. The DC members of the Research Scholar concerned will be invitees to the Viva voce Examination

RESOLUTION

44/SENATE/2019/4/ item (f)

RESOLVED THAT the Ph.D. viva-voce examination board as recommended by ARC be approved.

FURTHER RESOLVED THAT the approved Ph.D. viva-voce examination board shall be applicable for all batches.

g. 'S' Grade in PG theory courses

The Senate approved the following for award of "S" grade in theory courses for PG programmes.

In general, the S grade is restricted to a maximum of 10% of the total number of students appeared for the theory courses.

Further, the Senate opined that the award of "S" grade for laboratory courses and Project work for UG and PG programmes is restricted to 20 % of the total number of students appeared for the course. This is applicable for all batches.

RESOLUTION

44/SENATE/2019/4/ item (g)

RESOLVED THAT the award of "S" grade in theory courses for PG programmes is restricted to a maximum of 10% of the total number of students appeared for the theory courses be approved.

FURTHER RESOLVED THAT the award of “S” grade for laboratory courses and Project work for UG and PG programmes is restricted to 20 % of the total number of students appeared for the course. This is applicable for all batches.

5. Requests from Departments

a. Directed study courses for Ph. D.

The following courses (Table 4) are recommended by the Doctoral Committees of the research scholars of various departments.

Table 4 List of directed study courses approved by Doctoral Committees

Department	Courses
Management Studies	1. Natural Language Processing 2. Food Marketing 3. Consumer Behaviour Theory: Approaches and Models 4. Structural Equation Modeling: Basics and its Applications
Mathematics	1. Matrix Analysis 2. Optimization Techniques

The Senate approved the directed study courses and the syllabi as recommended by doctoral committees of the research scholars of various Departments.

Further, the Senate suggested not to offer directed study courses for Ph.D. programmes, rather study the offered courses by the Department in regular mode.

RESOLUTION

44/SENATE/2019/5/ Item (a)

RESOLVED THAT the directed study courses recommended by the Doctoral Committees be approved.

FURTHER RESOLVED THAT not to offer directed study courses for Ph.D. programmes.

b. Modified curriculum and syllabi for UG and PG programmes

The following departments (Table 5) conducted the meetings of Boards of Studies (BoS) for UG and PG programmes.

Table 5 Details of BoS meetings

Sl. No.	Name of the Department	Programme	Date of BoS meeting
1.	Chemistry	M. Sc. (Chemistry)	15-03-2019
2.	Chemical Engineering	B. Tech.	20-03-2019
		M. Tech. (Chemical Engineering)	22-03-2019
		M. Tech. (Process Control and Instrumentation)	19-03-2019
3.	Computer Science and Engineering	B. Tech.	12-03-2019
		M. Tech. (Computer Science and Engineering)	
4.	Electronics and Communication Engineering	B. Tech.	02-05-2019
		M. Tech. (VLSI System)	
		M. Tech. (Communication Systems)	
5.	Energy and Environment	B. Tech. (GIR course)	13-03-2019
		M. Tech. (Energy Engineering)	
6.	Management Studies	MBA	06-05-2019
		B. Tech. / Minor Courses	
7.	Mechanical Engineering	B. Tech.	14-03-2019
8.	Metallurgical and Materials Engineering	B. Tech.	18-03-2019

The Senate approved the modified curriculum and syllabi for the PG programmes as approved in the respective BoS and deferred the BoS recommendations of UG programmes. Further, the Senate requested the HoDs of UG departments to conduct the BoS after the revised B. Tech. curriculum structure is approved by the Senate.

RESOLUTION

44/SENATE/2019/5/ Item (b)

RESOLVED THAT modified curriculum and syllabi for the PG programmes as approved in the respective BoS be noted and approved with above mentioned observations.

nature, the Senate resolved to keep the cancellation of Ph. D. registration of Ms. Amutharasi G.T. in abeyance until a decision is taken in this regard by the Board of Governors.

RESOLUTION

44/SENATE/2019/6

RESOLVED THAT the cancellation of Ph. D. registration of Ms. R. Deepha stands justified. Further, the cancellation of Ph. D. registration of Ms. Amutharasi G.T. shall be kept in abeyance until a decision is taken in this regard by the Board of Governors.

Ratification Items

7. **Award of provisional degree to M. S. (by Research) and Ph. D. scholars who have successfully completed the requirements for the award of the degree**

The Senate ratified the award of provisional degree to M. S. (by Research) and Ph. D. scholars as per the list presented in Table 6.

Table 6 List of M. S. (by Research) and Ph.D. scholars to be awarded provisional certificate

Sl. No.	Roll No.	Name	Viva / GTC Date
M. S. (By Research)			
1.	310115002	Siddharth Bardiya	10-04-2019
2.	318915006	Chandrasekar P	02-05-2019
3.	318914002	K Rathinakumar	22-05-2019
Ph. D.			
1.	414114002	Anish Nair	15-03-2019
2.	405114001	Akila S	18-03-2019
3.	402915001	Jeyajothi K	18-03-2019
4.	416112052	T Prabha	03-04-2019
5.	408114003	Vijay B T	04-04-2019
6.	406114003	Vijaya J	10-04-2019
7.	414915001	Parthiban K	06-05-2019
8.	409113001	Shintu Dennis	07-05-2019
9.	405912004	P Shanthi	15-05-2019
10.	414112006	Sivakumar K	22-05-2019
11.	408115006	KM Divya Chaturvedi	23-05-2019
12.	408114006	Ananya Parameshwaran	23-05-2019
13.	408115007	Arvind Kumar	23-05-2019
14.	402113001	Indulekha John	24-05-2019

RESOLUTION
44/SENATE/2019/7

RESOLVED THAT the award of provisional degree to
M. S. (by Research) and Ph.D. scholars be ratified.

8. Any other item with permission of the Chairperson, Senate

There are no requests from members.

The Meeting concluded with thanks to the Chair.


Secretary, Senate


Chairperson, Senate

