



**Minutes of the 41<sup>st</sup> Meeting of the Senate of  
National Institute of Technology, Tiruchirappalli held on  
29<sup>th</sup> November 2018 at 11.00 AM in EEE Auditorium, NIT, Tiruchirappalli**

**The following Members were present in the Meeting:**

1.	Dr. Mini Shaji Thomas	Chairperson
2.	Dr. P. J. A. Alphonse	Member
3.	Dr. N. Ammasai Gounden	Member
4.	Dr. R. B. Anand	Member
5.	Dr. S. Anandan	Member
6.	Dr. N. Anantharaman	Member
7.	Dr. M. Arivazhagan	Member
8.	Dr. S. Arul Daniel	Member
9.	Dr. G. Arthanareeswaran	Member
10.	Dr. P. Asokan	Member
11.	Dr. S. R. Balasundaram	Member
12.	Dr. K. Baskar	Member
13.	Dr. M. Bhaskar	Member
14.	Dr. A. Chandra Bose	Member
15.	Dr. D. Deivamoney Selvam	Member
16.	Dr. K. Dhanalakshmi	Member
17.	Dr. M. Duraiselvam	Member
18.	Dr. N. Gopalakrishnan	Member
19.	Dr. N. P. Gopalan	Member
20.	Dr. J. Hemalatha	Member
21.	Dr. T. N. Janakiraman	Member
22.	Dr. P. Jayabalan	Member
23.	Dr. R. Jeyapaul	Member
24.	Dr. R. Karvembu	Member
25.	Dr. P. A. Krishnan	Member
26.	Dr. S. Kumanan	Member
27.	Dr. S. Kumaran	Member
28.	Dr. V. Kumaran	Member
29.	Dr. S. P. Kumaresh Babu	Member
30.	Dr. G. Lakshmi Narayanan	Member
31.	Dr. R. Leela Velusamy	Member
32.	Dr. C. Mala	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. V. Muthupandi	Member
42.	Dr. C. Nagamani	Member
43.	Dr. C. Natarajan	Member
44.	Dr. S. Natarajan	Member
45.	Dr. S. Nickolas	Member
46.	Dr. R. Ponalagusamy	Member
47.	Dr. M. Premalatha	Member
48.	Dr. M. Punniyamoorthy	Member
49.	Dr. T. K. Radhakrishnan	Member
50.	Dr. S. Raghavan	Member
51.	Dr. B. Ramadoss	Member
52.	Dr. Ramakalyan Ayyagari	Member
53.	Dr. S. Raman Sankaranarayanan	Member
54.	Dr. N. Ramasubramanian	Member
55.	Dr. S. T. Ramesh	Member
56.	Dr. B. Ravisankar	Member
57.	Dr. Samson Mathew	Member
58.	Dr. P. Sathiya	Member
59.	Dr. V. J. Sivakumar	Member
60.	Dr. S. P. Sivapirakasam	Member
61.	Dr. P. Sivashanmugam	Member
62.	Dr. T. Srinivas	Member
63.	Dr. T. Srinivasa Rao	Member
64.	Dr. D. Sriram Kumar	Member
65.	Dr. G. Subbaiyan	Member
66.	Dr. S. Sudha	Member
67.	Dr. G. Swaminathan	Member
68.	Dr. N. Thamaraiselvan	Member
69.	Dr. M. Udayakumar	Member
70.	Dr. G. Uma	Member
71.	Dr. M. Umapathy	Member
72.	Dr. S. Velmathi	Member
73.	Dr. S. Venkatachalapathy	Member
74.	Dr. A. Venkataswamy Reddy	Member
75.	Dr. V. Vinod Balakrishnan	Member
76.	Dr. K. Viswanathan Iyer	Member

77.	Shri. A. Palanivel	Secretary
78.	Dr. R. Joseph Ponniah	Special Invitee
79.	Dr. A. Meenatchi Sundram	Special Invitee
80.	Dr. P. Saikrishnan	Special Invitee
81.	Dr. B. Senthil Arasu	Special Invitee
82.	Dr. Rajeswari Sridhar	Special Invitee
83.	Dr. T. Ramesh	Special Invitee
84.	Dr. V. Arul Mozhi Selvan,	Special Invitee
85.	Dr. R. Gandhimathi	Special Invitee
86.	Dr. S. Moorthi	Special Invitee
87.	Mr. A. Sivarajan	Special Invitee

**The following members expressed their inability to attend the meeting:**

1.	Dr. K. Ramamurthy	External Member
2.	Dr. Gurumurthy Neelakandan	External Member
3.	Dr. G. C. Anupama	External Member
4.	Dr. A. K. Bakthavatsalam	Member
5.	Dr. L. Cindrella	Member
6.	Dr. P. Kalaichelvi	Member
7.	Dr. N. Kumaresan	Member
8.	Dr. P. Palanisamy	Member
9.	Dr. V. Ravi Chandran	Member
10.	Dr. S. Shanmugam	Member
11.	Dr. N. Sivakumaran	Member
12.	Dr. K. Sundareswaran	Member
13.	Dr. AR. Veerappan	Member
14.	Dr. B. Venkataramani	Member

**The following members did not attend the meeting:**

1.	Dr. Michael Arock	Member
2.	Dr. R. Narayanasamy	Member
3.	Dr. J. Sarat Chandra Babu	Member
4.	Dr. D. Sastikumar	Member
5.	Dr. B. Vasuki	Member
6.	Dr. G. Venkatesa Prabhu	Member

The Chairperson, Senate welcomed the members to the 41<sup>st</sup> Meeting of the Senate and having ensured a quorum, continued with the Senate proceedings. She shared some of the major achievements and developments since the last meeting of the Senate.

She welcomed the newly appointed Dean Dr. S. Raman Sankaranarayanan (ID & AR), and thanked Dr. Samson Mathew who held the additional charge of Dean (ID) till his appointment. The newly appointed Heads of Departments, Dr. Rajeshwari Sridhar (HoD, CSE) and Dr. K. M. Meera S. Begum (HoD, Chemical Engineering) are welcomed. The contributions of outgoing HoDs, Dr. Leela Velusamy and Dr. P. Sivashanmugam were appreciated.

The Chairperson congratulated Dr. M. Duraiselvam and his team for their contribution in setting up of Centre of Excellence in Manufacturing with help of SIEMEN'S in NIT, Tiruchirappalli. She urged all the co-ordinators of this programme and their team members to work hard to bring consultancy projects in collaboration with industries.

The Chairperson cited the recent MoUs with industries such as Tata Steel, BHEL, Tata Motors, SCL Chandigarh, SETS (Society for Electronic Transactions and Security), Chennai and Non-Disclosure agreement with Tech Mahindra and ABB and academic MoUs with IIT Bombay and IIT Mandi. Faculty members were urged to utilize this opportunity for enhancing collaborations academia and industry. Forthcoming CII meet on 04<sup>th</sup> December 2018 is an excellent arena to showcase our testing and research facilities.

The Chairperson highlighted the recent release of 5-year Strategic plan 2019-24 — Vision-mission, by the Honorable Minister for HRD Shri Prakash Javadekar. A whole-hearted cooperation from all stakeholders is sought to take the institution to be among the top 500 in the world ranking.

The Chairperson appreciated the team effort of the office bearers of two new offices namely the Media and Public relations and the Alumni Institute Interaction Cell (AIIC). A sizeable contribution of Rs. 53 lakhs has been received from the 1978 batch Alumni. Two Alumni meets in USA and another in Bangalore have been successfully coordinated by AIIC.

The Chairperson applauded the efforts of students Kartik Venkataraman (IV Year CSE), Deep Bhattacharyya (IV Year CSE), Arutselvan D (IV Year ECE) and their faculty mentor Dr. Rajeswari Sridhar (HoD, CSE) for securing the second place in the Indo-Singapore Joint Hackathon held in Singapore from 13<sup>th</sup> to 15<sup>th</sup> November 2018.

A performance review and interaction with Departments were undertaken by the Chairperson recently whereby she urged faculty members to focus on important ranking (NIRF) parameters such as quality publications, Internal Revenue generation (IRG) etc.

The Chairperson congratulated all the faculty members, students, and non-teaching staff for their contribution in

- Making Green campus - Swatchata ranking by MHRD – 2018
- Festember and Sports Fete events
- Flood Relief in Kerala/ Gaja Cyclone

On the eve of completing two successful years of her tenure as Director, NIT, Tiruchirappalli, she thanked everyone for the excellent support and cooperation.

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

**1. Confirmation of the Minutes of the 40<sup>th</sup> Meeting of the Senate held on 26<sup>th</sup> June 2018**

*The Senate resolved to confirm minutes of the 40<sup>th</sup> Meeting of the Senate.*

**RESOLUTION**  
**41/SENATE/2018/1**

**RESOLVED THAT the Minutes of 40<sup>th</sup> Meeting**  
**of the Senate held on 26<sup>th</sup> June 2018 be**  
**confirmed.**

**2. Action Taken Report on the decisions of the 40<sup>th</sup> Meeting of the Senate**

The Action Taken Report on the 40<sup>th</sup> Meeting of the Senate was discussed and Senate observed the following.

Item No.	Resolution	Action Taken / Being Taken
a.	<b>40/SENATE/2018/2</b> <i>Item: ATR: 39/ SENATE /2018/4</i> <i>Poor performance of B. Arch. I year students in the course "AR 103 History of Architecture –I"</i>	The Senate considered the report submitted by Performance Analysis Committee (PAC) on the poor performance of B. Arch. I year students in the course titled "AR 103 History of Architecture –I and directed the Department to explore the remedies to minimize recurrence in the future.
b.	<b>40/SENATE/2018/2</b> <i>Item: ATR: 39/ SENATE /2018/5</i> <i>Modifications in the seat matrix for M. Tech. (Energy Engineering) by</i>	Department of Energy and Environment informed the Senate that the BoS meeting will be conducted in December 2018 to finalize the eligibility criteria and seat matrix

	<i>considering all the other branches of Engineering</i>	for the M. Tech. (Energy Engineering) programme. The Senate directed the Department to submit their recommendations in the next Senate meeting.
c.	<b>40/SENATE/2018/4</b> <i>Items: The poor performance of I year students of B.Tech. Production Engineering in the course titled "MAIR21 Mathematics II". The poor performance of I year students of B. Arch. in the course titled "AR106 Mechanics of Solids"</i>	The Senate considered the report submitted by Performance Analysis Committees (PACs) on the poor performance of I year students of B. Tech. Production Engineering in the course "MAIR21 Mathematics II" and I year students of B. Arch. in the course "AR106 Mechanics of Solids" and directed the Departments to explore and implement the remedies to minimize recurrence in future.
d.	<b>40/SENATE/2018/5</b> <i>Item: Award of UG / PG / M. S. (by Research) and Ph.D. degrees in the 14<sup>th</sup> Convocation</i>	The Senate authorized the Chairperson Senate to approve the award of degrees for the students who would complete the degree requirements on or before 18 <sup>th</sup> July 2018 in the 14 <sup>th</sup> Convocation. The degrees were awarded on Convocation day (28 <sup>th</sup> July 2018) for those graduates.
e.	<b>40/SENATE/2018/7</b> <i>Item: (ii). The weightage for SWIR11 NSS / NCC / NSO shall be one credit. Weightage for the attendance and performance shall be reviewed. (iii). The title of the courses "MAIR11 Mathematics - I" and "MAIR21 Mathematics - II" shall be modified based on the course contents. (iv). Learning objectives of course titled "MAIR21 Mathematics - II" shall be reviewed and modified by considering all the branches of Engineering.</i>	The Senate was informed that the mooted points regarding the courses "SWIR11 NSS / NCC / NSO", "MAIR11 Mathematics - I" and "MAIR21 Mathematics - II" shall be included in the agenda for the forthcoming BoS meeting for GIR courses and subsequently the recommendations shall be placed in the next Senate meeting.
f.	<b>40/SENATE/2018/9</b> <i>Item: M. Tech. project work as intern in industry or research institution within India or foreign universities</i>	The Senate was informed that the recommendations of PG expert committee in this regard shall be placed in the next Senate meeting.
g.	<b>40/SENATE/2018/11</b> <i>Item: M. S. (by Research) scholars (sponsored by BHEL) seeking</i>	Research supervisors of the particular M. S. (by Research) scholars from BHEL were informed to conduct GTC to recommend the

	<i>resumption of the M.S.(by Research) programme</i>	resumption of M.S. (by Research) programme. Upon the recommendation of the respective GTCs, the Senate approved the resumption of M. S. programme for seven scholars. The research supervisors of the remaining fourteen scholars are directed to conduct the GTC immediately.
h.	<b>40/SENATE/2018/11</b> <i>Item: penalty amount imposed on a full time research scholar for excessive downloading of articles from Elsevier Science Direct in an unauthorized manner</i>	The Senate was informed that the scholar has paid the penalty amount to the institute as per the Senate resolution. Viva-voce examination has been completed and the provisional certificate has been issued to the Research scholar.

**RESOLUTION**                      **RESOLVED THAT the action taken on the 41/SENATE/2018/2 decisions of 40<sup>th</sup> Meeting of the Senate be noted and approved with above mentioned observations of the Senate.**

#### **Approval Items**

#### **3. Revised eligibility criteria for admission into 5-year B. Arch. Degree course**

The Institute has received the circular dated October 31, 2018 from Council of Architecture (CoA) regarding the revised eligibility criteria for admission into 5-year B. Arch. Degree course. As per this circular, the revised eligibility criteria for admission to 1<sup>st</sup> year of 5-year B. Arch. courses as approved by the Central Government will come into effect with effect from academic session 2019-20 onwards.

The revised eligibility criteria are as follows:

“No candidate shall be admitted to architecture programme unless she / he has passed an examination at the end of the 10+2 scheme of examination with 50 % marks in Physics, Chemistry and Mathematics and also 50 % marks in aggregate of the 10+2 level examination. Only candidates fulfilling the revised eligibility criteria shall be eligible for admission to the course from the session 2019-2020 onwards”.

“As per the minimum standards for Architectural Education, the practical training shall be for a period of one semester (approximately 15 to 18 weeks) in the 8<sup>th</sup> / 9<sup>th</sup> semester of the B. Arch. Degree programme”.

***The Senate approved the “revised eligibility criteria” for admission to the 1<sup>st</sup> year of the 5-year B. Arch. courses as approved by the Central Government.***

***Further, the Senate approved the recommendations of the Council of Architecture with respect to “practical training requirement as per the minimum standards for Architectural Education”. In this context, the Senate directed the Department to conduct the Board of Studies to confirm the semester (8<sup>th</sup> / 9<sup>th</sup> Semester) in which the practical training can be conducted.***

**RESOLUTION                      RESOLVED THAT** the “revised eligibility criteria”  
**41/SENATE/2018/3** for admission to the 1<sup>st</sup> year of the 5-year B. Arch.  
courses as approved by the Central Government  
be approved.

**FURTHER                      RESOLVED                      THAT** the  
recommendations of CoA with respect to  
“practical training requirement as per the  
minimum standards for Architectural Education”  
be approved with the above mentioned  
observations of the Senate.

**4. Conversion of seats for M. S. (by Research) programme into equitable no. of seats for Ph. D.**

In NIRF and QS world rankings, ‘graduation outcome of full time Ph.D. students’ is one important criteria. Also the institutional research quality is measured using *citations per faculty* metric and quality of publications. Since the number of full time Ph.D. scholars has a direct impact on the number of the quality publications, it is beneficial to increase the no. of full time Ph. D. intake (institute fellowship) for better research output.

As per the admission statistics of full time M. S. (by Research) programme in the past years, students with lower GATE score (than for the M. Tech.



admissions) enroll for full time M. S. (by Research) programme. It is also observed that the research output is generally poor by M. S. (by Research) students. Hence after consultations with the stakeholders, it is proposed to convert the full time M.S. (by Research) seats into an equitable number of Ph. D. seats. Considering the financial aspects, an equitable conversion factor has been arrived. Hence, 36 seats of full time M. S. (by Research) can be converted into 17 full time Ph. D seats.

***The Senate approved the conversion of 36 seats of full time M. S. (by Research) programme into 17 full time Ph. D seats without any additional financial burden. However, the existing sponsored M. S. (by Research) programme shall continue without any modifications in the admission criteria.***

**RESOLUTION**                      **RESOLVED THAT** the conversion of 36 seats of full time M. S. (by Research) programme into 17 full time Ph. D seats without any additional financial burden be approved. However, the existing sponsored M. S. (by Research) programme shall continue without any modifications in the admission criteria.

**41/SENATE/2018/4**

**5. Proposal submitted by Department of Mathematics to start new PG programme**

The Department of Mathematics has proposed to start new a PG programme (4 semesters) in M. Sc. (Mathematics). The Department of Mathematics has qualified faculty members and offers courses to all UG and PG programmes. Similar to the M. Sc. programme run by the Departments of Physics, Chemistry and Computer Applications, it is proposed to start a new M. Sc. Programme in Mathematics by Department of Mathematics. M. Sc. Mathematics graduates are generally in demand and the programme will enhance the research output and ensure better quality candidates for the Ph. D. programme of the Department.

***HoD, Department of Mathematics presented the details such as objectives and salient features of the proposed M. Sc. (Mathematics) programme.***

*The Senate approved the proposal in principle to start a new PG programme in M. Sc. (Mathematics) without any financial commitment to the institute.*

*The Senate further resolved as follows;*

*A detailed proposal (as per new format) shall be prepared and discussed in the Department BoS meeting. Subsequently, it shall be submitted to the PG Expert committee for scrutiny and later to the Senate for approval.*

**RESOLUTION**                      **RESOLVED THAT** the proposal submitted by 41/SENATE/2018/5 Department of Mathematics to start a new M. Sc. (Mathematics) programme be approved in principle without any financial commitment to the institute.

**FURTHER RESOLVED THAT** the detailed proposal (as per new format) shall be prepared and discussed in the Department BoS meeting. Subsequently, it shall be submitted to the PG Expert committee for scrutiny and later to the Senate for approval.

**6. Relaxation of residential requirement for part-time Ph. D. programme**

In order to improve the quality of engineering education in the less developed states, all the CFTIs have been directed by NPIU, Ministry of HRD to encourage the faculty without Ph. D. degree to enroll for Ph. D. under sponsored part-time category at the nearest National Institute of Technology (Ref. No.: NPIU / TEQIP –III / Acad. dated 5<sup>th</sup> June 2018). The initiative is also extended to other faculty members (which are not receiving any support / aide from any source). As per this directive, it is proposed to relax the criteria for minimum residential requirement and course work requirement for the part time Ph. D. scholars as given in Table 1.

**Table1 Criteria for Residential requirement and Course work requirement for Part Time Ph. D. scholars**

<b>Criteria</b>	<b>Existing</b>	<b>Proposed</b>
<b>Residential Requirement</b>	<p><b>(1) Part time (On campus)</b></p> <ul style="list-style-type: none"> <li>For the candidates under Part-time (On Campus) category, the minimum residential requirement is one semester.</li> </ul> <p><b>(2) Part time (External)</b></p> <ul style="list-style-type: none"> <li>The minimum residential requirement for candidates under Part-time (External) category for undertaking course work is eight weeks.</li> </ul>	<ol style="list-style-type: none"> <li>The residential requirements shall be waived.</li> <li>The scholar shall report to the research supervisor / DC at least on three different occasions per semester for official discussions.</li> <li>The scholar's visits to NIT Tiruchirappalli may be scheduled during summer / winter vacations, but only on institute working days.</li> </ol>
<b>Course work requirement</b>	<p><b>(1) Part time (On campus)</b></p> <ul style="list-style-type: none"> <li>Four relevant theory courses at Master's degree level (as recommended by the DC) shall be taken by the scholar.</li> <li>Normally the course work shall be undertaken during the residential period of one semester itself.</li> </ul> <p><b>(2) Part time (External)</b></p> <ul style="list-style-type: none"> <li>Four relevant theory courses at Master's degree level (as recommended by the DC) shall be taken by the scholar.</li> <li>The candidates may complete the course work during their mandatory stay of at least eight weeks which may be undertaken in maximum</li> </ul>	<ol style="list-style-type: none"> <li>The course work requirement can be considered to be fulfilled either by undertaking to study the courses at NIT Tiruchirappalli or by taking online courses offered under reputed agencies such as NPTEL, MOOCs, SWAYAM which are approved by the Doctoral Committee.</li> <li>After completion of online courses (after certification), the evaluation will be facilitated / carried out by the research supervisor / DC at NIT Tiruchirappalli.</li> </ol>

	<p>of four instances of two weeks each.</p> <ul style="list-style-type: none"> <li>The research scholars are permitted to undertake the course work under 'directed study' mode.</li> </ul>	
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*The Senate discussed the matter in detail and approved the proposed changes in residential requirement and course work criteria only for the Part time (External) scholars. However, the residential requirement and course work criteria for Part time (on campus) shall follow the existing regulations without any changes. Table 2 gives the details as per the Senate approval.*

**Table 2 Criteria for Residential requirement and Course work requirement for Part Time Ph. D. scholars**

<b>Criteria</b>	<b>Existing</b>	<b>New norms as per Senate approval</b>
Residential Requirement	<p><b>(1) Part time (On campus)</b></p> <ul style="list-style-type: none"> <li>For the candidates under Part-time (On Campus) category, the minimum residential requirement is one semester.</li> </ul> <p><b>(2) Part time (External)</b></p> <ul style="list-style-type: none"> <li>The minimum residential requirement for candidates under Part-time (External) category for undertaking course work is eight weeks.</li> </ul>	<p><b>No Change</b></p> <ol style="list-style-type: none"> <li>The residential requirements shall be waived.</li> <li>The scholar shall report to the research supervisor / DC at least on three different occasions in every semester for official discussions.</li> <li>The scholar's visits to the department may be scheduled during summer / winter vacations, but only on institute working days.</li> </ol>

<p>Course work requirement</p>	<p><b>(1) Part time (On campus)</b></p> <ul style="list-style-type: none"> <li>• Four relevant theory courses at Master's degree level (as recommended by the DC) shall be taken by the scholar.</li> <li>• Normally the course work shall be undertaken during the residential period of one semester itself.</li> </ul> <p><b>(2) Part time (External)</b></p> <ul style="list-style-type: none"> <li>• Four relevant theory courses at Master's degree level (as recommended by the DC) shall be taken by the scholar.</li> <li>• The candidates may complete the course work during their mandatory stay of at least eight weeks which may be undertaken in maximum of four instances of two weeks each.</li> <li>• The research scholars are permitted to undertake the course work under 'directed study' mode.</li> </ul>	<p style="text-align: center;"><b>No Change</b></p> <ol style="list-style-type: none"> <li>1. The course work requirement can be considered to be fulfilled either by undertaking to study the courses at NIT Tiruchirappalli or by taking online courses offered under reputed agencies such as NPTEL, MOOCs, SWAYAM which are approved by the Doctoral Committee.</li> <li>2. After completion of online courses (after certification), the evaluation will be facilitated / carried out by the research supervisor / DC at NIT Tiruchirappalli.</li> </ol>
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***Further, the Senate opined that regular or temporary faculty members from TEQIP funded institutes joining part time Ph. D. programme in our institute shall be considered as on par with part-time (External) category. This facilitates our institute to comply with the directive from NPIU, MHRD with reference to the part-time Ph. D. scholars from TEQIP funded institutes.***

***In particular, this provision shall be extended to faculty members from our mentee institute, Dr. B. R. Ambedkar Institute of Technology, Port***

*Blair, Andaman and Nicobar Islands, to enroll and pursue Ph. D. programme as part-time (External) research scholars in our institute.*

RESOLUTION  
41/SENATE/2018/6

RESOLVED THAT the proposed changes in residential requirement and course work requirement criteria shall be approved only for admission of Part time (External) scholars.

- (i). The residential requirement shall be relaxed with a condition that 'the scholar shall report to the research supervisor / DC at least on three different occasions (visits) in every semester for official discussions'.
- (ii). The course work requirement can be considered to be fulfilled either by undertaking to study the courses at NIT Tiruchirappalli or by taking online courses under reputed agencies which are approved by the Doctoral Committee. After completion of online courses (after certification), the evaluation will be facilitated / carried out by the research supervisor / DC at NIT Tiruchirappalli.

For the Part time (on campus) Ph.D. scholars the existing criteria for residential requirement and course work requirement shall apply without any changes.

FURTHER RESOLVED THAT that regular or temporary faculty members from TEQIP funded institutes joining part time Ph. D. programme in our institute shall be considered as on par with part-time (External) category. This facilitates our institute to comply with the directive from NPIU, MHRD with reference to the part-time Ph. D. scholars from TEQIP funded institutes.

In particular, this provision shall be extended to faculty members from our mentee institute, Dr. B. R. Ambedkar Institute of Technology, Port Blair, Andaman and Nicobar Islands, to enroll and pursue Ph. D. programme as part-time (External) research scholars in our institute.

## 7. Requests from Departments

- (i). As per the 39<sup>th</sup> meeting of the Senate, the Senate observed that the admission to M.Sc. (Computer Science) shall be through centralized counseling process for the academic year 2019-20 onwards based on JAM score in Mathematical Statistics. Hence, the HoD of Computer Applications submitted the revised eligibility criteria for admission to M.Sc. (Computer Science) through centralized counselling process for the academic year 2019-20 onwards based on JAM score in Mathematical Statistics.

***The Senate approved the revised eligibility criteria as per the details given in Table 3.***

**Table 3 Eligibility Criteria for admission to M. Sc. (Computer Science)**

Existing	Revised
a) B.Sc. (Computer Science) / B.Sc. (Information Technology) / BCA	1. B.Sc. in Mathematics / Mathematical Sciences / Statistics / Applied Mathematics / Mathematics and Computer Applications / Computer Applications / statistics / Applied Sciences / Computer Science / IT / Data Science 2. BCA
b) B.Sc. (Applied Sciences) with Mathematics and Computer Science (10+2+3 scheme) from a recognized university	
c) Any Bachelor's degree in science (10+2+3 scheme) from a recognized university with at least 6 papers in Computer Science and 2 papers in Mathematics under semester system or at least 3 papers in Computer Science and 1 paper in Mathematics under Annual System.	

**RESOLUTION**                      **RESOLVED THAT** the revised eligibility criteria for admission to M.Sc. (Computer Science) through centralized counselling process for the academic year 2019-20 onwards based on JAM score in **Mathematical Statistics** be approved.

(ii). **Directed study courses for Ph. D. course works**

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**

<b>Department</b>	<b>Courses</b>
Chemical Engineering	1. Nanotechnology in Agriculture
Chemistry	1. Single Crystal X-ray Crystallography
Civil Engineering	1. Remote Sensing Application in Coastal Engineering 2. Advanced Hydrology and Watershed Modeling 3. Simulation Modeling in Hydrology 4. Soil and Water Conservation and Management 5. Transportation Logistics
Computer Science and Engineering	1. Advanced Topics in NOSQL Databases 2. Security Issues for IOT Applications 3. Autonomous Computing at the IoT – Edge 4. Energy Aware Distributed Computing 5. High Performance Scientific Computing 6. Architecture, Protocols, and Security Issues for Wireless Sensor Networks 7. Semantic Web 8. Introduction to Deep Learning
Electrical and Electronics Engineering	1. Risk Management in Power Systems 2. Digital Simulation of Power Systems
Electronics and Communication Engineering	1. Emerging Nano-Devices 2. FPGA Based System Design
Humanities and Social Sciences	1. Blockchain – Business Innovations and Applications 2. Political Sociology 3. Economics of Growth and Development 4. Social Entrepreneurship: Opportunities and Successful Models 5. Applied Social Psychology 6. Basics of Criminology 7. Game Theory: Decisions and Games 8. Behavioural Economics: Theory and Practice



	9. Neuroeconomics 10. Complete Writings of Michel Foucault 11. Classical Sanskrit Drama 12. Comparative Ethics 13. Agricultural Economics 14. Introduction to Machine Learning 15. Healthcare Data Analytics
Management Studies	1. Micro Finance 2. Blockchain Technology: Design and Usecases 3. Industrial Psychology 4. Behavioural Economics 5. e-Governance and Technology Management 6. IT Products and Services Management 7. Google Analytics 8. Web Analytics 9. Social Media Analytics
Mathematics	1. Advanced Complex Analysis 2. Geometric Function Theory
Mechanical Engineering	1. Mechanics, Manufacturing and Finite Element Analysis of Composite Materials
Production Engineering	1. Additive Manufacturing
Physics	1. Neutron Radiography

***The Senate approved the directed study courses and the syllabi as recommended by doctoral committees of the research scholars of various Departments with following observations (Table 5).***

**Table 5 Observations and directives of Senate in respect of directed study courses**

Title of the Course*	Observations	Directives of Senate
<i>Department: Humanities and Social Sciences</i>		
a. Complete Writings of Michel Foucault b. Classical Sanskrit Drama c. Comparative Ethics	do not have structured contents	to be revised and resubmitted to Senate
d. Introduction to machine learning	<i>identical to the course "CA605 Machine Learning Techniques" offered by Department</i>	<ul style="list-style-type: none"> <li>• New course is not approved.</li> <li>• <i>The Department of Humanities and</i></li> </ul>

	of Computer applications for M. Tech. Data Analytics	Social Sciences to examine the contents of the course "CA605" offered by Department of Computer Applications and avail / recommend the same for the research scholars.
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**Note:** *\*However as a one-time measure, these course(s) shall be permitted in the present form if any research scholars are currently undertaking the same.*

*In addition, a common format shall be prepared by the academic office which shall include the approval of the respective DC members and the HoD. This new format shall be circulated to all the Departments at the earliest. All the directed study courses listed in Table 4 shall be resubmitted in the new format for approval by Dean (Academic).*

*The academic office is directed to upload all the directed study courses (with syllabus) approved by the Senate.*

**RESOLUTION 41/SENATE/2018/7/ Item (ii)**      **RESOLVED THAT** the directed study courses recommended by the Doctoral Committees be approved with suggested modifications.

**FURTHER RESOLVED THAT** the new format shall be perused in future for approval of directed study courses.

- (iii). To consider the request from HoD, Department of Mathematics seeking an option for the Ph. D. scholars to choose the appropriate course for Research Methodology. That is, either the newly proposed course (**Resolution: 40/SENATE/2018/10 dated 26<sup>th</sup> June 2018**) or the

previously existing course (MA801–Research Methodology in Mathematical Science).

***The Senate resolved as follows:***

***The Doctoral Committees of the Ph. D. scholars from the Department of Mathematics shall have an option to select the Research Methodology course as per the following.***

***i. Research Methodology (CC801– Research Methodology) for Engineering, Sciences and Architecture departments***

***or***

***ii. Research Methodology course (MA801– Research Methodology in Mathematical Science)***

**RESOLUTION**                      **RESOLVED THAT** subject to the suitability of the 41/SENATE/2018/7/ content, the respective Doctoral Committees of the scholars from the Department of Mathematics may recommend either Research Methodology (CC801– Research Methodology) for Engineering, Sciences and Architecture Departments

***or***

**the one already in use (MA801– Research Methodology in Mathematical Science).**

(iv).To consider the request from the HoD, Department of Management Studies, to change the term valid from the 'Valid CAT score' in the eligibility criteria to be considered for admission into Ph.D. programme in Department of Management Studies.

A Valid NET / UGC / CAT / AIMA score is the existing eligibility criteria for admission into Ph.D. programme in Department of Management Studies. The present request is to change it as "a onetime valid NET / UGC / CAT / AIMA score" to attract more candidates for Ph. D. admission in Management stream.

***The Senate discussed the matter at length and observed that the proposed changes in eligibility criteria for admission into Ph. D. programme in Department of Management Studies are not clear.***

*Hence, the Department is directed to revise the eligibility criteria and resubmit it for approval.*

**RESOLUTION**            **RESOLVED THAT** the proposed changes in 41/SENATE/2018/7/ eligibility criteria for admission into Ph. D. programme in Department of Management Studies are not clear. The Department is directed to revise the eligibility criteria and resubmit it for approval.

**8. Request from faculty members**

- (i). To consider the request from Dr. V. Karthik, Assistant Professor, Metallurgical and Materials Engineering, to continue as a joint supervisor (Co-Guide) for the Ph. D. students registered under Anna University.
- (ii). To consider the request from Dr. D. Ruben Sudhakar, Assistant Professor, Energy and Environment, to continue as a joint supervisor (Co-Guide) for the Ph. D. students registered under his guidance in NITK, Surathkal.
- (iii). To consider the request from Dr. K. Muthukumar, Professor, Chemical Engineering, to continue as a supervisor (Guide) for the Ph. D. students registered under Anna University.
- (iv). To consider the request from Dr. Rajeshwari Sridhar, Associate Professor, Computer Science and Engineering, to continue as a supervisor (Guide) and joint supervisor (Co-Guide) for the Ph. D. students registered under her guidance in College of Engineering, Guindy, Anna University.

*In all the cases 8 (i) to (iv), the requests are for continuation as Guide or Co-guide for the research scholars registered under Anna University (Case 8 (i), (iii) and (iv)) and NITK, Surathkal (Case 8 (ii)).*

*The Senate discussed the matter at length and approved the cases 8 (i) to (iv) on the condition of zero financial commitment to the institute.*

*Further, the Senate resolved as follows;*

*A one-time relaxation shall be permitted for the newly appointed faculty to continue guiding their research scholars (admitted in the erstwhile*

*employer institution) on the condition of zero financial commitment to the institute.*

RESOLUTION  
41/SENATE/2018/8

RESOLVED THAT the requests from faculty members (8 (i) to (iv)) to continue as Guide or Co-guide for the students registered under Anna University (Case 8 (i), (iii) and (iv)) and NITK, Surathkal (Case 8 (ii)) be approved on the condition of zero financial commitment to the institute. Special Casual Leave (SCL) shall be permitted for attending doctoral committee meetings.

FURTHER RESOLVED THAT a one-time relaxation shall be permitted for newly appointed faculty to continue guiding their research scholars (admitted in the erstwhile employer institution) on the condition of zero financial commitment to the institute.

**9. Request from students**

There are no requests from students.

**10. Possibility of offering online degree programmes as per MHRD request**

MHRD has requested to explore the possibility of offering online degree programmes and provide the list of online degree / diploma courses to be offered by NIT, Tiruchirappalli. If feasible, these programmes shall start from 2019-20.

*The Senate discussed this matter at length and opined that the possibility of offering online degree programmes by Engineering Departments is limited. However, the Senate directed the Departments of Management Studies and Humanities and Social Sciences to explore the possibility of offering online diploma / executive programmes in market driven courses.*

*In this context, the Senate opined that setting up a "Centre for Continuing Education" to offer online degree / diploma / executive programmes is very appropriate and should be explored.*

**RESOLUTION**  
**41/SENATE/2018/9**

**RESOLVED THAT** the possibility of offering online degree programmes by Engineering Departments is limited. The Departments of Management Studies and Humanities and Social Sciences are directed to explore the feasibility of offering online diploma / executive programmes in market driven courses.

**FURTHER RESOLVED THAT** the setting up the “Centre for Continuing Education” to offer online degree / diploma / executive programmes is very appropriate and should be explored.

#### **Ratification Items**

- 11. 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**

<b>Sl. No.</b>	<b>Roll No.</b>	<b>Name</b>	<b>Degree</b>	<b>GTC / Viva Date</b>
<b>M. S. (by Research)</b>				
1.	303914002	THAVAMANI CHARLES	M. S.	19-09-2018
2.	318915002	G NAGESWARAN	M. S.	16-10-2018
3.	310114051	RAJENDRA SINGH THAKUR	M. S.	16-11-2018
4.	310915001	BIMAL KANTA SETHI	M. S.	24-11-2018
5.	307115002	RUFZAL T A	M. S.	26-11-2018
<b>Ph. D.</b>				
6.	413107002	SATHYA SHEELA S	Ph. D.	23-07-2018
7.	413112003	MUTHUGANESAN R	Ph. D.	10-08-2018
8.	406909052	RAJBABU K	Ph. D.	06-09-2018
9.	413112006	DHANABAL R	Ph. D.	11-09-2018
10.	417114001	D V SIVA KRISHNA RAO K	Ph. D.	14-09-2018
11.	407113005	VIJAYA PRIYA R	Ph. D.	20-09-2018
12.	417113001	RAMAKANT PANDEY	Ph. D.	20-09-2018
13.	414115002	A PALANISAMY	Ph. D.	01-10-2018
14.	413113004	MUHAMMED SHAFI P	Ph. D.	10-10-2018
15.	416113002	SWARNALATHA R	Ph. D.	22-10-2018
16.	408913055	SRINIVASARAO CHINTAGUNTA	Ph. D.	26-10-2018

17.	406114001	MANJITH B C	Ph. D.	02-11-2018
18.	403114001	PALA GIREESH KUMAR	Ph. D.	16-11-2018
19.	410113002	S SRINIVASULU RAJU	Ph. D.	22-11-2018
20.	415115002	PRASANTA KR CHOPDAR	Ph. D.	26-11-2018
21.	412114002	MURUGASAMI R	Ph. D.	26-11-2018

**RESOLUTION RESOLVED THAT the decision of award of 41/SENATE/2018/10 provisional degree to M. S. (by Research) / Ph. D. scholars be ratified.**

**12. Fee payment for M. Tech. Admission under sponsored category**

To ratify the request of Chairperson, PG Admission committee, to exempt the fee payment for the employees of National Aerospace Laboratories (NAL), Bengaluru, by NAL and permit the sponsored employees to pay their semester fees by themselves for M. Tech. Admission under sponsored category in our institute.

As per NITT regulations for M. Tech. admission under sponsored category, the applicant should enclose the "Sponsorship Certificate" from the employer. One of the mandated condition in the certificate is "The semester fee shall be paid by the sponsoring organization and not by the candidate".

But in the sponsorship certificate issued by NAL for their employees, it was mentioned as "The semester fee shall be paid by the candidate himself". However, other mandated conditions like granting leave with full pay and allowances for the entire period of study were granted by NAL. Since, NAL is a constituent of the Council of Scientific and Industrial Research (CSIR), Government of India, the fee payment for the candidate directly by NAL may not be possible.

***The Senate ratified the approval of Chairperson, senate, to exempt the fee payment for the employees of National Aerospace Laboratories (NAL), Bengaluru from the mandated condition mentioned in the "Sponsorship Certificate".***

***Further, this condition shall be extended for all organizations falling under Government sector, Central and State public sector organization, societies directly under Government of India and such Government / Quasi government organization and Multinational Corporations (MNCs), provided other conditions are satisfied.***

**RESOLUTION**                      **RESOLVED THAT** the decision to exempt  
41/SENATE/2018/11 applicants from NAL from the mandated  
condition (fee payment) mentioned in the  
“Sponsorship Certificate” be ratified.

**FURTHER RESOLVED THAT** this condition shall  
be extended for all organizations falling under  
Government sector, Central and State public  
sector organization, societies directly under  
Government of India and such Government /  
Quasi government organization and Multinational  
Corporations (MNCs) provided other conditions  
are satisfied.

**13. Shifting of elective course from 9<sup>th</sup> semester to 10<sup>th</sup> semester in B. Arch.  
programme**

To ratify the request received from 9<sup>th</sup> semester students of Architecture  
Department to allow them to withdraw the currently registered elective subject  
“AR557 Architectural Criticism” and further to permit registering the same  
course in the 10<sup>th</sup> semester. The faculty handling the subject and the HoD have  
recommended the case.

The shifting of elective course “AR557 Architectural Criticism” from 9<sup>th</sup> to 10<sup>th</sup>  
semester will reduce the total credits in the 9<sup>th</sup> semester (24 to 22) and increase  
the total credit in the 10<sup>th</sup> semester (22 to 24) with no change in the total  
minimum prescribed credits (214) for the award of B. Arch. Degree.

***The Senate ratified shifting of the elective course from 9<sup>th</sup> semester to 10<sup>th</sup>  
semester in B. Arch. Programme as a one-time measure. However, if the  
same change is proposed for next year batch also, it should be  
recommended by Board of Studies.***

**RESOLUTION**                      **RESOLVED THAT** the shifting of elective course  
41/SENATE/2018/12 from 9<sup>th</sup> semester to 10<sup>th</sup> semester in B. Arch.  
Programme be ratified as a one-time measure.



FURTHER RESOLVED THAT if the same change is proposed for next year batch also, it should be recommended by Board of Studies.

14. 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

