



**Minutes of the 38<sup>th</sup> Meeting of the Senate of  
National Institute of Technology, Tiruchirappalli held on 21<sup>st</sup> November  
2017 at 3.30 pm in A13 Hall, NIT, Tiruchirappalli**

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

|     |                               |                    |
|-----|-------------------------------|--------------------|
| 1.  | Dr. Mini Shaji Thomas         | Chairperson-Senate |
| 2.  | Dr. N. Ammasai Gounden        | Member             |
| 3.  | Dr. N. Anantharaman           | Member             |
| 4.  | Dr. S. Arul Daniel            | Member             |
| 5.  | Dr. P. Asokan                 | Member             |
| 6.  | Dr. A.K. Bakthavatsalam       | Member             |
| 7.  | Dr. L. Cindrella              | Member             |
| 8.  | Dr. D. Deivamoney Selvam      | Member             |
| 9.  | Dr. N. P. Gopalan             | Member             |
| 10. | Dr. P.Jayabalan               | Member             |
| 11. | Dr.T.N. Janakiraman           | Member             |
| 12. | Dr. P.A. Krishnan             | Member             |
| 13. | Dr. G. Kannabiran             | Member             |
| 14. | Dr. S. Kumanan                | Member             |
| 15. | Dr. S. Moses Santhakumar      | Member             |
| 16. | Dr. V. Muthupandi             | Member             |
| 17. | Dr. K. Murugesan              | Member             |
| 18. | Dr. C. Natarajan              | Member             |
| 19. | Dr. C. Nagamani               | Member             |
| 20. | Dr. S. Natarajan              | Member             |
| 21. | Dr.A.Noorul haq               | Member             |
| 22. | Dr. M. Punniyamoorthy         | Member             |
| 23. | Dr.R.Ponalagusamy             | Member             |
| 24. | Dr. S. Raghavan               | Member             |
| 25. | Dr. T.K. Radhakrishnan        | Member             |
| 26. | Dr. S. Raman Sankaranarayanan | Member             |
| 27. | Dr. B. Ramadoss               | Member             |
| 28. | Dr. Srinivas A Tadepalli      | Member             |
| 29. | Dr. P. Sivashanmugam          | Member             |
| 30. | Dr. J. Sarat Chandra Babu     | Member             |
| 31. | Dr. Samson Mathew             | Member             |
| 32. | Dr. S.Selvakumar              | Member             |
| 33. | Dr. K. Sundareswaran          | Member             |
| 34. | Dr.K.Sankaranarayasamy        | Member             |
| 35. | Dr.S.Shanmugam                | Member             |
| 36. | Dr.T.Selvaraj                 | Member             |
| 37. | Dr.D.Sastikumar               | Member             |
| 38. | Dr.M.Umapathy                 | Member             |
| 39. | Dr.B.Venkataramani            | Member             |
| 40. | Dr. A.Venkatasamy Reddy       | Member             |
| 41. | Dr.G.Venkatesa Prabhu         | Member             |

|     |                           |                 |
|-----|---------------------------|-----------------|
| 42. | Dr.K.Viswanathan Iyer     | Member          |
| 43. | Shri. A. Palanivel        | Secretary       |
| 44. | Dr. A. Meenatchi Sundaram | Special Invitee |
| 45. | Dr. R. Leela Velusamy     | Special Invitee |
| 46. | Dr. S.R. Balasundaram     | Special Invitee |
| 47. | Dr. K. Baskar             | Special Invitee |
| 48. | Dr. G. Lakshmi Narayanan  | Special Invitee |
| 49. | Dr. M.Premalatha          | Special Invitee |
| 50. | Prof. R. Gururaj          | Special Invitee |
| 51. | Dr. S.P. Sivapirakasam    | Special Invitee |
| 52. | Dr. S.P. Kumaresh Babu    | Special Invitee |
| 53. | Dr. B. Vasuki             | Special Invitee |
| 54. | Dr. N. Gopalakrishnan     | Special Invitee |
| 55. | Dr. M. Duraiselvam        | Special Invitee |
| 56. | Dr. B. Senthil Arasu      | Special Invitee |
| 57. | Dr. S. T. Ramesh          | Special Invitee |
| 58. | Dr. P. Raja               | Special Invitee |
| 59. | Dr. R. Jeyapaul           | Special Invitee |
| 60. | Dr. R. Karvembu           | Special Invitee |
| 61. | Dr. A. Ramakalyan         | Special Invitee |
| 62. | Dr. S. Moorthi            | Special Invitee |
| 63. | Dr. G. Subbaiyan          | Special Invitee |

**The following Member expressed their inability to attend the Meeting:**

|    |                         |                 |
|----|-------------------------|-----------------|
| 1. | Dr. V. Jagadeesh Kumar  | External Member |
| 2. | Dr. Malathy Duraisamy   | External Member |
| 3. | Dr.R.Narayanasamy       | Member          |
| 4. | Dr.R.Nallaswamy         | Member          |
| 5. | Dr. G. Swaminathan      | Member          |
| 6. | Dr. T. Srinivasa Rao    | Member          |
| 7. | Dr.M.Udayakumar         | Member          |
| 8. | Dr. M. Venkata Kirthiga | Special Invitee |

The Chairperson, Senate welcomed the members to the 38<sup>th</sup> Meeting of the Senate and having ensured a quorum, continued with the Senate proceedings. The Chairperson thanked the members for the successful conduct of Convocation 2017 and Alumni Day. The Chairperson welcomed Prof. C. Natarajan, Prof. M. Umapathy, Prof. T. K. Radhakrishnan and Prof. Samson Mathew to the Senate Meeting who have been newly appointed as Deans of the Institute. The Chairperson also welcomed the new head of Civil Engineering department, Dr. K. Baskar as special invitee to the Senate meeting. Further, the Chairperson thanked the former Deans, Prof. G. Swaminathan, Prof. T. Sastikumar, Prof. D. Deivamoneyselvam, Prof. A.Venkatasamy Reddy for their valuable contributions to the institute. Special appreciation was conveyed to the outgoing head of Civil Engineering department, Prof. Samson Mathew.

The Chairperson commended the efforts of the Institute on the occasion of receiving the national level higher education excellence award from FICCI for 'University of the year (In existence for more than 30 years)' by showcasing the academic transformation, placements and



rankings. Also the Chairperson congratulated the faculty, staff and students for NITT being ranked 228 in the QS Asia Ranking.

The Chairperson then appraised the Senate about the salient features of the application of Institution of Eminence and appealed for the cooperation of all members for the submission of application on time.

After the welcome address by the Chairperson, Registrar started the deliberations on the Agenda items.

**1. Confirmation of the Minutes of the 37<sup>th</sup> meeting of the Senate held on 06<sup>th</sup> July 2017**

*The Chairperson, Senate acknowledged the comments of Prof. S. Raghavan on initiating the best thesis award and informed that this item shall be referred to the Academic Reforms Committee to make final recommendations to the Senate.*

*The Senate resolved to confirm Minutes of the 37<sup>th</sup> Meeting of the Senate*

**RESOLUTION**                      **RESOLVED THAT the Minutes of 37<sup>th</sup> Senate Meeting**  
**38/SENATE/2017/1**                      **held on 6<sup>th</sup> July 2017 be confirmed.**

**2. Action Taken Report on the decisions of the 37<sup>th</sup> meeting of the Senate**

*The Action Taken Report on the 37<sup>th</sup> Meeting of the Senate was discussed and the Senate observed the following:*

| <b>Item No.</b> | <b>Resolution</b>  | <b>Action Taken / Being Taken</b>   |
|-----------------|--|---|
| a               | 37/SENATE/2017/2<br>(Reference:<br>36/SENATE/2017/7)<br>ATR: Modifications in the course work                                      | The Senate approved the revised syllabus of 'Applied Econometrics' course, submitted by the HoD of Humanities & Social Sciences.  |
| b               | 37/SENATE/2017/2<br>(Reference:<br>36/SENATE/2017/12)<br>ATR: Award of Doctorate Degree (Honoris Causa) to Shri. N. Chandrasekaran | As approved in the Senate and the BoG, the degree of Doctor of Letters (Honoris Causa) has been awarded to Shri. N. Chandrasekaran, Chairman of TATA Sons in the 13 <sup>th</sup> Convocation of NIT Tiruchirappalli held on 12 <sup>th</sup> August 2017.  |
| c               | 37/SENATE/2017/2<br>(Reference:<br>36/SENATE/2017/13)<br>ATR: Admitting Indian Navy Sponsored candidates                           | Two candidates from Directorate of Naval Education (Indian Navy) have been admitted, one each in M.Tech. Computer Science and Engineering and M.Tech. VLSI Design for the academic year 2017-18. The admission of Indian Navy Sponsored candidates to M.Tech courses at NIT Tiruchirappalli has been governed by the new regulations as approved by the Senate. |
| d               | 37/SENATE/2017/5   | The Senate authorized the Chairperson-Senate to approve the award of degree for the students who would complete the degree  |

|   |   |  |
|---|---|--|
|   | Award of degrees in the 13 <sup>th</sup> Convocation                                | requirements on or before 31 <sup>st</sup> July 2017 for the award of the degree in the 13 <sup>th</sup> Convocation. The Senate approved the revised list of graduates.   |
| e | 37/SENATE/2017/7<br>Modifications in the course work                                | The Senate approved the revised syllabus of 1. Materials Science and 2. Corrosion Science, submitted by the HOD of Chemical Engineering.   |
| f | 37/SENATE/2017/8<br>Modifications in the curriculum of M.Tech. (Data Analytics)     | The HOD of Computer Applications has informed that the guidelines for admitting students from all engineering disciplines for M.Tech. (Data Analytics) shall be placed in the next Senate meeting.   |
| g | 37/SENATE/2017/8<br>Modifications in the curriculum of M.Tech. (Energy Engineering) | The HOD of Energy and Environment has submitted the revised curriculum of M.Tech. (Energy Engineering) after incorporating the suggestions of the Senate.  |
| h | 37/SENATE/2017/10<br>Items: c, d & e<br>Revision of Ph.D Regulations                | The Academic Reforms Committee has considered the suggestions of the Senate to broaden the framework of Ph.D. Regulations to handle the typical requests of the scholars by empowering the DC. The recommendations of the Academic Reforms Committee are being presented as a separate agenda.   |
| i | RESOLUTION<br>37/SENATE/2017/10<br>Items: c, d & e<br>The request of Ms.K.Malathy   | The research supervisor of Ms. K. Malathy (R. No: 405116004), full time research scholar in the department of Computer Applications has been informed of the Senate's decision that the registration of the candidate shall be converted into part time after conducting the comprehensive examination subject to the approval of the DC. She is yet to complete the comprehensive examinations. |
| j | RESOLUTION<br>37/SENATE/2017/10<br>Items: h<br>The request of Ms. Sathya Sheela     | As per the communication from the research supervisor, Ms. Sathya Sheela (R. No: 413107002), Research Scholar in the department of Physics has been asked to complete the thesis corrections and present the same to the DC for consideration and for making suitable recommendations to the Senate.   |
| k | RESOLUTION<br>37/SENATE/2017/12<br>Recommendations PG Expert Committee              | As per the approved recommendations of PG Expert Committee, the Institute has admitted two candidates from M/s. Hyundai Motors Ltd., Chennai in M.Tech. (Manufacturing Technology) Programme for the academic year 2017-18.  |

**RESOLUTION  
38/SENATE/2017/2**

**RESOLVED THAT the actions taken on the decisions of 37<sup>th</sup> Senate Meeting be noted and approved with the above mentioned observations of the Senate.**

- 3. Ratification and approval of the award of Provisional degree to M.S/Ph.D. candidates who have successfully completed the requirements for the award of the degree**



The Senate ratified the award of Provisional degree to M.S/Ph.D. candidates as per the list presented in Annexure-III of Agenda and Notes.

**RESOLUTION  
38/SENATE/2017/3**

**RESOLVED THAT the decision of award of Provisional degree to M.S./Ph.D. Candidates as per the list presented in Annexure-III in Agenda and Notes be ratified.**

**4. Directed study courses for Ph.D. course work**

*The following courses are recommended by the Doctoral Committees of the Research Scholars belonging to various departments;*

List of courses:

| <b>S.No.</b> | <b>Department</b>                              | <b>Course</b>  |
|--------------|--|--|
| 1            | <b>Computer Application</b>                    | 1. Green Computing<br>2. Data Compression  |
| 2            | <b>Energy Engineering</b>                      | 1. Solar Thermal Energy Storage  |
| 3            | <b>Civil Engineering</b>                       | 1. Advanced Soil Mechanics for Problematic Subgrade<br>2. Microwave Remote Sensing and its Applications<br>3. Watershed Conservation and Management<br>4. Climate Change and Sustainable Development<br>5. Hyperspectral Remote Sensing and its Applications |
| 4            | <b>Computer Science and Engineering</b>        | 1. Reconfigurable Architectures for Cryptographic Algorithms<br>2. FPGA Programming Techniques<br>3. Architectural Support for IOT Applications  |
| 5            | <b>Instrumentation and Control Engineering</b> | 1. Computational Electromagnetics and Applications – NPTEL Course  |
| 6            | <b>Physics</b>                                 | 1. Nanophotonics   |
| 7            | <b>Humanities</b>                              | 1. Indirect Taxation<br>2. Cost Estimation<br>3. Economics Statistics<br>4. Readings in Industrial Economics   |
| 8            | <b>Mathematics</b>                             | 1. Advanced Numerical for Singularly Perturbed Differential Equations<br>2. Introduction to Singularly Perturbed Differential Equations  |
| 9            | <b>Management Studies</b>                      | 1. Business Process Management<br>2. Chatbots<br>3. Advanced Text Mining<br>4. Deep Learning for Text Mining   |

*The Senate observed that the syllabi for the following courses, offered in the department of Computer Science and Engineering are identical.*

- I. *Architecture and Technologies for Internet of Things*
- II. *Internet of Things – Architecture and Design Principles*

*Hence, it is resolved to approve only one of the courses titled, 'Internet of Things – Architecture and Design Principles'.*

*The course, 'Advance Cryptography', offered by the department of Computer Science and Engineering shall be renamed as 'Advanced Cryptography'.*

*The Senate suggested to review the content of the course titled, 'Welding Simulation for Boiler Components', offered in the department of Production Engineering.*

**RESOLUTION  
38/SENATE/2017/4**

**RESOLVED THAT the courses recommended by the  
Doctoral Committees be approved with suggested  
modifications.**

## **5. Request(s) from Departments**

- (i) The Department of Instrumentation and Control Engineering has conducted the BoS for B.Tech. (Instrumentation and Control Engineering) Programme on 13-07-2017. The HoD of ICE Department shall present the revised curriculum and syllabi of B.Tech. (Instrumentation and Control Engineering) as approved in the BoS. The revised curriculum is applicable for the students admitted in 2017-18.

*The Senate approved the revised curriculum and syllabi of B.Tech. (Instrumentation and Control Engineering).*

- (ii) To ratify the request of Dr. D. Sriramkumar, ECE department for conducting the Ph.D. viva-voce examination for his research scholar, Ms.V.Sudha, a Faculty of ECE department with a notice period of less than two weeks (specified in the regulations), so that the scholar can apply for faculty recruitment at NIT Tiruchirappalli. The Clause, P.19.5 of Ph.D. Regulations states that the oral examination shall be conducted normally not earlier than two weeks from the date of the constitution of the Oral Examination Board.

*Ratified*

- (iii) To ratify the request of Dr. S. Mary Saira Bhanu, CSE department to conduct the Ph.D. viva-voce examination for her research scholar, Ms. S. Jaya Nirmala, a Faculty of CSE department with a notice period of less than two weeks (specified in the regulations), so that the scholar can apply for faculty recruitment at NIT Tiruchirappalli. The Clause, P.19.5 of Ph.D. Regulations states that the oral examination shall be conducted



normally not earlier than two weeks from the date of the constitution of the Oral Examination Board.

*Ratified*

- (iv) To ratify the request of Dr. V. Lakshmana Gomathi Nayagam, Mathematics department to conduct the Ph.D. viva-voce examination for his research scholar, Mr.S.Jeevaraj, a full time scholar of Mathematics department with a notice period of less than two weeks (specified in the regulations), so that the scholar can apply for a post-doctoral position at the University of Chile in time. The Clause, P.19.5 of Ph.D. Regulations, states that the oral examination shall be conducted normally not earlier than two weeks from the date of the constitution of the Oral Examination Board.

*Ratified*

- (v) To ratify the request of the HOD of Civil Engineering to modify the eligibility requirements of the Ph.D. Programme in the department of Civil Engineering.

| <b>Existing conditions for eligibility</b>  | <b>Proposed conditions for eligibility</b>   |
|---|--|
| Candidates with Geomatics, Remote sensing, Ocean Engineering and Agricultural Engineering in undergraduate or post-graduate are also eligible to apply for GIS and Remote sensing specialization. | Candidates with B.E./B.Tech. or M.E./M.Tech. with any specialization offered by Civil Engineering department are also eligible to apply. |

*Ratified*

**RESOLUTION  
38/SENATE/2017/5**

**RESOLVED THAT the representations from the departments 5 (i) to (v) be ratified/approved.**

## **6. Students' Representations**

- (i) To consider the request of Ms. R. Varthini (R. No: 414115008), full time research scholar in the department of Production Engineering to convert her Ph.D. registration from full time to part time. The scholar has been offered a posting in a Govt. College of Engineering, Srirangam and the employer has submitted the NOC. The Doctoral Committee of the student has recommended.
- (ii) To consider the request of Mr. Edwin Jose (R. No: 413115002), full time – Non Stipendiary research scholar in the department of Physics to convert his Ph.D registration from full time to part time. The scholar has been offered a posting in a Govt. aided College in Kerala and the employer has submitted the NOC. The Doctoral Committee of the student has recommended.

- (iii) To consider the request of Mr. N. Sambath (R. No: 410114052), full time research scholar in the department of Instrumentation and Control Engineering to convert his Ph.D registration from full time to part time. The scholar has been offered a posting in a TNEB and the employer has submitted the NOC. The Doctoral Committee of the student has recommended.

- (iv) *The requests i, ii and iii shall be governed by the additional provisions in Ph.D. regulations being proposed by the Academic Reforms Committee as a separate agenda item No.7. The decision of Senate in respect of the relevant recommendation of ARC shall be binding and shall be adopted for these requests.*

**RESOLUTION**  
**38/SENATE/2017/6**

**RESOLVED THAT** *The decision of Senate in respect of the relevant recommendation of ARC shall be binding and shall be adopted for action on the requests 6 (i) to (iii).*

#### **7. Recommendations of Academic Reforms Committee**

In the milieu of requests from full time Ph.D. scholars for conversion to part time mode, the Senate in its 37<sup>th</sup> Meeting considered that the Ph.D. regulations shall include provision to accommodate such requests while simultaneously ensuring the compliance regarding i) minimum residential requirements, completion of comprehensive examination and ii) progress of the research work. With such a provision in the Ph.D. regulations, the Doctoral Committee shall be empowered to take a decision on such typical matters within the framework of Regulations. As per the suggestions of the Senate, the Academic Reforms Committee has carried out deliberations on necessary modifications in the Ph.D. regulations and also a few other matters. The other matters include admission for B.Arch. Programme under DASA category, Regulations for the M.Arch. programme, etc. The recommendations of ARC were discussed and the Senate approved the recommendations with some modifications as presented in Annexure.

**RESOLUTION**  
**38/SENATE/2017/7**

**RESOLVED THAT** **the recommendations of Academic Reforms Committee be approved with modifications.**

#### **8. Nomination of faculty members to the BoG by the Senate.**

*As per the Clause 11 of NITs Act 2007, two faculty members have to be nominated from Senate as members to the Board of Governors. The term of office of the current Senate nominated members comes to an end on 19-11-2017. Hence, nominations were called from Professors and Associate Professors for the Senate nominations for the period 2017-2019. The ballot process of nomination was conducted on 21-11-2017, prior to the Senate Meeting. Dr. S. Sathishkumar, Assistant Registrar (Academic) coordinated the voting process. Dr. P. Jayabalan, Professor of Civil Engineering and Dr. K.*



*Muthukumaran, Associate Professor of Civil Engineering were declared as nominees of Senate for the Board of Governors.*

*The Senate appreciated the excellent services rendered by the outgoing Senate nominees of BoG, Prof. T. K. Radhakrishnan and Dr. K. N. Sheeba and also appreciated Assistant Registrar (Academic) for the smooth conduct of the nomination process.*

**RESOLUTION  
38/SENATE/2017/8**

**RESOLVED THAT the nomination of faculty members, Dr. P. Jayabalan and Dr. K. Muthukumaran as Senate nominees to the BoG be approved.**

**9. Any other item with the permission of the Chairperson.**

**Application for Institution of Eminence:**

The Govt. of India has announced to declare ten public and ten private institutions as Institutions of Eminence (IoE) with an objective of developing world class teaching and research institutions. The Ministry of Human Resource Development has invited applications from top ranking Indian universities and institutions to be transformed as 'Institutions of Eminence (IoE)' whereby greater autonomy in the Academic, Financial, Administrative and other regulatory aspects shall be provided 'to empower the institution to achieve the world class status'.

With a consistent record of academic excellence and all-round growth over the past fifty three years, the National Institute of Technology, Tiruchirappalli is one among the top 50 ranking institutes at present and is way ahead of some of the new IITs and all other NITs in the NIRF ranking. A salubrious campus with excellent academic departments, dedicated teachers and cream of the country among students render the institute to be the dream destination for students and teachers from far and wide.

The status of IoE will lay certain challenges to the institute including the mandate to achieve a place in the top 500 of the global rankings within 10 years of being declared an institution of eminence and eventually reach the top 100 slot, to have a teacher: student ratio of 1:20 to begin with and 1:10 in five years, a mix of Indian and international faculty etc. Further, a registration fee of Rs.1.00 crore is to be paid for filing the application.

Considering all the above aspects and to move with a mission to make the NIT Tiruchirappalli 'a world class' institute, the BoG of the institute has approved to apply for IoE as the institute satisfies the eligibility requirements. The major requirement for filing the application is to have a 15 year strategic plan of the institute with a 5 years implementation plan. The institute has constituted a 'Strategic Plan Group (SPG)' which comprises of Deans and NIRF Task force. The SPG has formulated the guidelines, formats and key area of requirements with a time schedule, and the same has been communicated to the departments for SWOT analysis to develop the strategies as a bottom up approach.

With the inputs from the departments and other stake holders, a comprehensive strategic plan shall be developed in line with guidelines of IoE application. The IoE application shall be compiled and presented to the BoG for its approval before making the final submission to the UGC.

*Noted*

**RESOLUTION  
38/SENATE/2017/9**

**RESOLVED THAT the application for Institution of  
Eminence be noted as above.**

The Meeting ended with a vote of thanks to the Chair.

  
Secretary- Senate

  
Chairperson-Senate