



SATHYABAMA

Institute of Science and Technology

(Established under Section 3 of the UGC Act, 1956)

Declared as Category "A" University by Ministry of HRD, Govt. of India
(A CHRISTIAN MINORITY INSTITUTION)
Jeppiaar Nagar, Rajiv Gandhi Road, Chennai – 600 119, Tamil Nadu, India



15th BOARD OF RESEARCH MEETING - 2018

Date: 01.09.2018

Time: 11:15 AM

Venue: Board Room, Administrative Block

MEETING AGENDA

Welcome Address

: Dr. S. Sundar Manoharan
Chairman, Board of Research
Sathyabama Institute of Science and Technology

Briefing on the Objectives of the meeting

: Dr. B. Sheela Rani
Convener & Member Secretary – Board of Research
Sathyabama Institute of Science and Technology

MEMBERS:

Internal Members:

- 1) Dr. S. Sundar Manoharan – Vice-Chancellor
- 2) Dr. T. Sasipraba – Pro Vice-Chancellor
- 3) Dr. S.S. Rau – Registrar
- 4) Dr. B. Sheela Rani – Director (Research)
- 5) Dr. E. Logashanmugam – Director (Administration)
- 6) Dr. G. Sundari – Dean (Student Affairs)
- 7) Dr. N. M. Nandhitha – Dean (School of Electrical and Electronics Engineering)
- 8) Dr. S. Prakash – Dean (School of Mechanical Engineering)
- 9) Dr. Bhuwaneswari – Dean (School of Management Studies)
- 10) Dr. M. Sundareswari – Dean (School of Science & Humanities)
- 11) Dr. G. Vigneswari – ^{Head} Dean (School of Computing)

Invitees

- 12) Dr. Dilshad Shaik, - Dean (School of Law)
- 13) Dr. Thayumanavan – Dean (Dental College and Hospital)

External Members:

- 1) Dr. S. Bose, Professor, CSE, Anna University, Chennai.
- 2) Dr. R. Govindaraj, Member, Senior Principal Scientist, CEERI Centre, CSIR Madras Complex, Taramani, Chennai – 600 113.
- 3) Dr. A. Velayudham – Scientist – F, CVRDE, Avadi, Chennai.

Dr. B. SHEELA RANI, M.S. (By Research), Ph.D.,
DIRECTOR (RESEARCH)
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jeppiaar Nagar, Rajiv Gandhi Salai,
Chennai - 600 119.

B. Sheela Rani
(Member Secretary)

- 4) Dr. Mukesh Doble –Professor, Ph.D, University of Aston (UK), Department of Biotechnology, Bhubat and Indian Institute of Technology Madras, Chennai – 600 036.
- 5) Dr. M. Alagar – Professor, A.C. Tech Campus, Anna University, Chennai – 600 025.
- 6) Dr. E. Natarajan – Professor, Institute for Energy Studies, Anna University, Chennai - 600025
- 7) Dr. M. Mathirajan – Chief Research Scientist, Department of Management Studies, Indian Institute of Science (IISc), Bangalore.

AGENDA

A REPORT

- Ph.D Admissions January 2018/July 2018
- Award of Ph.D degree

FOR DISCUSSION AND APPROVAL

- Approval for Supervisor recognition 2018
- Change of Faculty for award of Ph.D degree
- Re-registration of candidates after cancellation with coursework exemption (Coursework completed)
- Coursework exemption requested with credentials of the candidate projected (All courseworks not completed)- For discussion in the Board
- Research candidates – Work Progress
 - For Extension beyond the maximum time period
 - Break of study during the course of study
 - Confirmation of registration
- Regulations for Doctor of Philosophy (Revised till August 2018)
- Any other points for discussion

B. Sheela Rani
(Member Secretary)

Dr. B. SHEELA RANI, M.S. (By Research), Ph.D.,
DIRECTOR (RESEARCH)
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jeppiaar Nagar, Rajiv Gandhi Salai,
Chennai - 600 119.

A REPORT

Ph.D Admissions

For registration in the month of January 2018, based on the performance in the entrance examination conducted on **28th October 2017** and screening test **14 candidates** have registered under Full-Time mode, **3 Candidates** have registered under Part-Time (Internal) mode and **94 Candidates** have registered under Part-Time (External) mode.

For registration in the month of July 2018, based on the performance in the entrance examination conducted on **11th May 2018**, and screening test **14 candidates** have registered under Full-Time mode, **7 Candidates** have registered under Part-Time (Internal) mode and **91 Candidates** have registered under Part-Time (External) mode.

Award of Ph.D degree

For the year 2017, based on the research scholar's work and successfully defending the Ph.D viva-voce examination, the board recommended the award of Ph.D degree for **58 candidates** in the year 2017 and for **85 candidates** in the year 2018.

SUBMISSIONS FOR DISCUSSION AND APPROVAL

1. Recognition of New supervisor

47 Faculty have been recognized as Registered Supervisors of Sathyabama Institute of Science and Technology for January 2018 and **12 Faculty** have been recognized as Registered Supervisors of Sathyabama Institute of Science and Technology for July 2018.

2. Change of Faculty for award of Ph.D Degree

Candidate has completed UG program in Civil Engineering and PG in Environmental Management under the faculty of Civil Engineering. Her research work is on "Treatment of textile dyeing effluent by electro-fenton process integrated with laboratory scale anaerobic sequencing batch reactor" under the Guidance of Dr. P.Parthiban under the Faculty of Civil Engineering. Candidate requests for Award of Doctor of Philosophy in Faculty of Civil Engineering. Being interdisciplinary approval requested.

1. Ms. A. Latha (2011797106)

3. Re-registration of candidates after cancellation with coursework exemption (Coursework completed)

1 candidate had re-registered after cancellation and requested for coursework exemption.

1. Mr. T. Mahalingam (2017191103)

4. Coursework exemption requested with credentials of the candidate projected (All coursework's not completed)- For discussion in the Board

1. Mr. P. Jayakumar (2017194110)

B. Sheela Rani
Member Secretary
Dr. B. SHEELA RANI, M.S. (By Research), Ph.D.,
DIRECTOR (RESEARCH)
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Joppiaar Nagar, Rajiv Gandhi Salai,
Chennai - 600 119.

5. Transfer of Ph.D program from another University to Sathyabama Institute of Science and Technology by the candidate – Procedures to be followed

6. Progress of research candidates – On extension - Confirmation of registration - Break of study - Cancellation

a) Availed the maximum time period in the Ph.D program of 6 years – Not eligible for further extensions.

Following are the 7 candidates who have completed the maximum time period of six years and have not extended their time period properly. No work progress observed. Requested for approval by the board for cancellation of their registration.

1. Mr. Sudhir Shenai (2009791123) - Synopsis meeting over 22/12/18
2. Mr.R.Paramesh (2010791131) - Synopsis meeting not over RC to be given
3. Mr.V.Gopinath (2010199504) - Synopsis meeting over 21/12/18
4. Ms.J.Sudha (2010191113) - Synopsis meeting over on 22/12/18
5. Mr.Marudhachalam (2010199505) - Synopsis meeting not over.
6. Mr.A.Velmurugan (2010792105)
7. Mr.A.Subash Chadar (2010791127) - Synopsis meeting not over RC to be given

b) Availed the maximum time period in the Ph.D program of 6 years with the extension time period of 2 years - Thesis not submitted - Expert committee meeting being organized and conducted

Following are the 7 candidates who have completed the maximum time period of six years and had taken extension for a period of two years (in spells of six months). Synopsis meeting is also completed. They have not submitted the thesis for a longer time period. An expert committee meeting has been organized by the University in the month of May 2018, to check for the obsolescence in the research work. Members have recommended and suggested for few inclusions in their proposed research and deadline for submission of thesis has been fixed till 30th September 2018. Requested for approval by the board. If not their registration is subject to cancellation.

1. Mr. J. Karthikeyan (2006194238) - over
2. Ms. G. Suganthi (2006792204) - To cancel
3. Ms. R. Uma Maheswari (2008199384) - Thesis submitted - viva voce
4. Mr. R. Karthikeyan (2008792107) - To cancel
5. Mr. G. Jegan (2008792115) - Thesis stage
6. Mr. Hariprasad (2008792110) - Thesis stage
7. Mr. M.R.Lokesh (2009191110) - over

c) Availed the maximum time period in the Ph.D program of 6 years with the extension time period of 2 years - Thesis not submitted - Expert committee meeting being organized but not conducted

Following are the 3 candidates who have completed the maximum time period of six years. No communication has been received on the research progress even after repeated reminders. Requested for approval by the board for cancellation of their registration.

B. Shukla
D. SHEELAKRISHNAN, M.S. (B) Research, Ph.D.,
DIRECTOR (RESEARCH)
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jeppiaar Nagar, Rajiv Gandhi Salai,
Chennai - 600 119.

1. Mr. Shamuga Raman (2008798104) - cancelled 17/19/2018
2. Mr. S. Meenakshi Sundaram (2009191116) - cancelled 17/19/2018
3. Ms. A. Aruna (2009199631) - cancelled 17/19/2018

d) Availed the maximum time period in the Ph.D program of 6 years with the extension time period of 2 years - Thesis not submitted

Following are the 31 candidates who have completed the maximum time period of six years and had taken extension for a period of two years (in spells of six months). Synopsis meeting has been completed. Thesis is not submitted for a longer time period. A deadline for submission of thesis has been fixed till 31st October 2018. Requested for approval by the board. If not their registration is subject to cancellation.

1. Mr. Sathappan.S (2009791121) - over (TS)
2. Ms. Mercy Theresa.M (2009792116) - over (irch committee)
3. Mr. Vedanarayanan.V (2009792113) - Thesis not submitted
4. Mr. Muruganandam.S (2009799501) - over (TS)
5. Mr. Rajasekaran.S (2009792112) - over (TS)
6. Ms. Uthara Lakshmi.N (2009795101) - over (TS)
7. Mr. Sridhar Raja.K.S (2009794109) - over (TS)
8. Ms. Gomathi.K (2009799504) - over (TS)
9. Mr. Gopi.E (2009798102) - Plagiarism check
10. Ms. Ramanan.K (2009791127) - over (TS)
11. Ms. Priya.S.V (2009792120) - Synopsis meeting ~~not conducted~~ over. fees till Jan 2017
12. Ms. Sathyabama Krishnan (2010191114) - Synopsis meeting over on 30/5/17
13. Ms. Paulin Florence (2010191103) - Synopsis meeting over on 21/9/16
14. Mr. Vino.T (2010192113) - over (TS)
15. Mr. Sugadev (2010192118) - over (TS)
16. Mr. Venkatasubramanian (2010193101) - over (TS)
17. Mr. Ravikumar.E (2010194103) - synopsis meeting over on 23/5/18
18. Ms. Bhuvaneshwari.N.R (2010192119) - $\textcircled{2}$ Synopsis meeting
19. Mr. Raghunathan.P (2010192117) - synopsis meeting over on 16/9/2017
20. Mr. Samuel Simran Rajkumar (2010196103) - over (TS)
21. Mr. J. Albert Mayan (2010791120) - over (TS)
22. Ms. Kanimozhi.A (2010791110) - over (TS)
23. Mr. Jayasakthi Velmurugan.K (2010791113) - synopsis meeting over on 30/6/18
24. Ms. Ankayarkanni.E (2010791118) - over (TS)
25. Ms. Maheshwari.A (2010791112) - Synopsis meeting over on 21/8/18
26. Mr. Veeramuthu.A (2010791228) - Synopsis meeting $\textcircled{2}$
27. Mr. Pradeepkumar.S (2010791105) - Synopsis meeting over on 17/11/18
28. Mr. Venkatesh.S (2010791109) - Synopsis meeting over on 8/9/18 in ch
29. Mr. Prabhu L (2010194206) - irch committee
30. Ms. Krishnaveni S (2010792107) - synopsis meeting over on 13/1/17
31. Mr. Porchilamban.S (2010794204) - over (TS)

B. Shule Ra.

- e) Availed the maximum time period in the Ph.D program of 6 years with the extension time period of 2 years – Synopsis meeting not conducted

Following are the **2 candidates** who have completed the maximum time period of six years and had taken extension for a period of two years (in spells of six months). They have completed the publications and have requested for conduct of synopsis meeting. A deadline for conduct of synopsis meeting and submission of thesis has been fixed on or before **31st December 2018**. If not their registration is subject to cancellation.

1. Mr.Vengata Krishnan (2010199213) – *synop ns meeting over on 20/12/18*
2. Mr.S.Saravanan (2010195308) – *in ch committee*

- f) Availed the maximum time period in the Ph.D program of 6 years – Extension meeting not conducted.

57 candidates (Registered between January 2011 – July 2012) have not taken their extension after the maximum period of six years. A deadline for conduct of extension meeting on or before **30th November 2018** has been fixed. If not their registration is subject to cancellation. Request for approval by the board.

- g) Provisional registration not confirmed

55 candidates (Registered till July 2015) have not confirmed their provisional registration even after the maximum period of three years from the date of their registration. A deadline for conduct of comprehensive meeting on or before **30th November 2018** has been fixed. If not their registration is subject to cancellation. Approval requested by the board.

- h) Break of study – Requested by candidates

Break of study from Jan – Dec 2018 have been requested by the following **6 Candidates**. Approval requested.

1. Ms.Sabitha.V (2012191202)
2. Ms.Reena Gabriel (2013798106)
3. Ms.Dheera (2013798103)
4. Ms.Sudha Rajayogam (2014192202)
5. Mr.Manesh V.M. (2016792113)
6. Ms. R.Janice(2017199602)

- i) Coursework – Not Completed

Following **3 candidates** did not clear the coursework prescribed by the doctoral committee. Approval Requested for cancellation.

1. Mr. K. Chiranjeevi (2017196108)

2. Mr. L. Sai Inba Sena Reddy (2017196109)

3. Mr. M. Siva Chennakesava (2017196110)

j) Coursework – Through NPTEL

Every candidate who registers for the Ph.D program has to undergo 4 courseworks prescribed by the doctoral committee members. A Core Paper - Research Methodology Tools & Techniques, a directed study paper and two papers have to be chosen from the PG programme. If these two courses are not offered by the University and if offered as NPTEL course, permission requested by the board to take up as NPTEL course.

k) Due to the demise of the following **2 candidates**, registration cancellation is requested.

1. Mr. Magesh Babu (2009794101) - RC 17/19/18
2. Ms. Lakshmi Rekha (2010792106) - RC 17/19/18

l) Discontinuation of Ph.D program

Following **5 candidates** have requested for course discontinuation. Hence, requested for cancellation by the board.

1. Mr.C.Prasath (2010193107) - RC (17/19/18)
2. Ms. R. Sugnaya (2012195101)
3. Mr.Sajan Vedha Kumar (2015191111)
4. Ms.Sathyavathy Radhakrishnan (2015791207) ✓
5. Ms. Umarani (2016792114) ✓

m) Special request to extend the maximum time period (In case of maternity)

No. F. 1-2/2009(EC/PS)V(I) Vol. II - In exercise of the powers conferred by clauses (f) and (g) of sub-section (1) of Section 26 of the University Grants Commission Act, 1956 (3 of 1956), and in supersession of the UGC (Minimum Standards and Procedure for Awards of M.Phil./Ph.D. Degree) Regulation, 2009, notified in The Gazette of India [No. 28, Part III-Section 4] for the week July 11 — July 17, 2009, University Grants Commission Regulations under 4. Duration of the Ph.D Programme: 4.4 The women candidates and Persons with Disability (more than 40 % disability) may be allowed a relaxation of one year for M.Phil and two years for Ph.D. in the maximum duration. In addition, the women candidates may be provided Maternity Leave/Child Care Leave once in the entire duration of M.Phil/Ph.D. for up to 240 days.

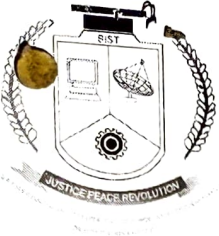
Following **1 candidate** have requested to extend the maximum time period due to maternity. Approval requested by the board

1. Ms.Kuberal Thangaraj (2011799203)

7. **Regulations for Doctor of Philosophy (with all amendments incorporated upto August 2018) – For discussion**

Dr. B. SHEELA RANI, M.S. (B, Research), Ph.D.,
DIRECTOR (RESEARCH)
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jeppiaar Nagar, Rajiv Gandhi Salai,
Chennai - 600 119.

B. Sheela Rani -
(Member Secretary)



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited with "A" Grade by NAAC
Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai - 600 119.

Phone: 044 - 2450 3150 / 51 / 52 / 54 / 55 Fax: 044 - 2450 2344

www.sathyabama.ac.in



MINUTES OF THE MEETING OF THE FIFTEENTH BOARD OF RESEARCH HELD ON 1st SEPTEMBER, 2018.

The 15th Board of Research meeting was held on 1st September, 2018 at 11.00 A.M. with Dr .S. Sundar Manoharan, Vice Chancellor as the Chairman of the Board.

Dr. B. Sheela Rani, Director (Research), the Member Secretary and Convener of the Board introduced the members of the Board and requested the Vice Chancellor to Chair the meeting. The Vice Chancellor greeted everyone present and opened the floor for discussion on various points of the Agenda. A report on the academic research activities for the year 2018 had been presented.

1. For admission to **July 2018**, based on the performance in the entrance examination held on **11th May 2018**, and screening test **14** candidates have registered under Full-Time mode. **7** Candidates have registered under Part-Time (Internal) mode and **91** Candidates have registered under Part-Time (External) mode.
2. In the **27th** Convocation of the institution held on **22nd July 2018**, based on the research scholar's work and on successful defending in the public viva-voce examination, with the recommendations by the Board, **85** candidates have been awarded Ph.D.
3. From January 2018, **59** Faculty of Sathyabama Institute of Science and Technology have been recognized as Registered Supervisors of Sathyabama Institute of Science and Technology.
4. Faculty Research Review symposium has been conducted where all the faculty Members show cased their research work as posters and the best presentation has been identified.

1. Confirmation of previous minutes of meeting.

The minutes of the previous meeting was circulated to the members and placed for confirmation.

2. Dead line extension request for submission of Thesis and conduct of Synopsis meeting

For **47 candidates** who have completed the maximum time period of six years with an extension of two years and pending for either conduct of synopsis meeting or thesis submission have been given an extended dead line of 3-6 months as the case may be for completing the process. If not, board has recommended to cancel their registration.

3. Break of Study

A scholar can avail break of study for a maximum period of two years in spells of 6 months to one year at a time during the Ph.D program. For **6 candidates**, board has recommended for approval of Break of Study.

Chairman's Initial

Page 1

Dr. B. SHEELA RANI, M.S. (By Research), Ph.D.,
DIRECTOR (RESEARCH)
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Jeppiaar Nagar, Rajiv Gandhi Salai,
Chennai - 600 119.

B. Sheela Rani
(Member Secretary)

4. Special Case

The women candidates and Persons with Disability (more than 40 % disability) may be allowed a relaxation of two years for Ph.D. in the maximum duration. In addition, the women candidates may be provided Maternity Leave/Child Care Leave once in the entire duration of Ph.D. for up to 240 days as per UGC (Minimum Standards and Procedure for Awards of M.Phil./Ph.D. Degree) Regulation, 2009 notified in The Gazette of India [No. 28, Part III-Section 4] for the week July 11 — July 17, 2009, University Grants Commission Regulations under 4. Duration of the Ph.D Programme: 4.4 For **1 candidate** the board has recommended for approval.

5. Course work and Confirmation of Provisional Registration

A candidate has to complete the prescribed coursework and confirm the provisional registration within a maximum time period of three years.

- (i) Of the four courses prescribed, as a part of learning process to the teaching and research fraternity, Research Methodology Tools and Techniques which is a mandate course should be taken as a regular course of study offered in the Institution by Full time and Part time (Internal) candidates. At any point of time, a candidate can undergo only one course through NPTEL of their choice. For **3 candidates** the board recommended to adhere to the procedure stated.
- (ii) A candidate whose registration has been cancelled and registered newly and if requests for exemption of course work, an expert committee meeting is to be constituted with Supervisor, DC members with an Expert to review the research and to prescribe the course work accordingly. For **2 candidates** the board recommended to adhere to the procedure stated.

6. Transfer of Ph.D program from other University

Candidates seeking transfer of Ph.D program from other University is kept in abeyance – As the credits for the course work cannot be decided and supervisor should be from host Institution .

7. Regulations for Doctor of Philosophy (Based on Standards and Procedure for Award of M.Phil./Ph.D. Degrees) Regulations,2016;

The University Grants Commission has prescribed UGC (Minimum Standards and Procedure for Award of M.Phil./Ph.D. Degrees) Regulations,2016 in supersession of the UGC (Minimum Standards and Procedure for Award of M.Phil/Ph.D. Degrees) Regulations,2009; applicable from the academic year 2016-17 and onwards; Hence forth, a draft of the Regulations for Doctor of Philosophy (*Revised as on August 2018*) of Sathyabama Institute of Science and Technology has been put to the board for suggestions . The observations have been recorded for inclusion.

8. Other points on discussion

Inclusion of Faculty of Law in Ph.D program is kept in abeyance – As it requires a post graduate programme and also a minimum of 2 faculty with Ph.D qualification.

The meeting ended with Vote of thanks by the Chairman of the Board.

B. Sheela Rani

Member Secretary

Dr. B. SHEELA RANI, M.S. (By Research), Ph.D.,
DIRECTOR (RESEARCH)
SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Joppiaar Nagar, Rajiv Gandhi Salai,
Chennai - 600 119.



SATHYABAMA

1/9/2018



Institute of Science and Technology

(Established under Section 3 of the UGC Act, 1956)

Declared as Category "A" University by Ministry of HRD, Govt. of India

(A CHRISTIAN MINORITY INSTITUTION)

Jeppiaar Nagar, Rajiv Gandhi Road, Chennai – 600 119, Tamil Nadu, India

BOARD OF RESEARCH MEETING - 2018

Date: 01.09.2018

Time: 11:15 AM

Venue: Board Room, Administrative Block

THE FOLLOWING MEMBERS WERE PRESENT FOR THE MEETING

S.No.	NAME	SIGNATURE
1.	Dr. S. Sundar Manoharan Vice-Chancellor, Sathyabama Institute of Science and Technology Chairman - Board of Research	
2.	Dr. B. Sheela Rani Director (Research), Sathyabama Institute of Science and Technology Convener & Member Secretary--Board of Research	
3.	Dr. T. Sasipraba Pro Vice-Chancellor, Sathyabama Institute of Science and Technology Member --Board of Research	
4.	Dr. S.S. Rau Registrar, Sathyabama Institute of Science and Technology Member --Board of Research	
5.	Dr. E. Logashanmugam Director (Admin), Sathyabama Institute of Science and Technology Member --Board of Research	
6.	Dr. G. Sundari Dean (Student Affairs), Sathyabama Institute of Science and Technology Member --Board of Research	
7.	Dr. Vigneswari - Dean (School of Computing), Sathyabama Institute of Science and Technology Member --Board of Research	
8.	Dr. N. M. Nandhitha Dean (School of Electrical & Electronics Engg), Sathyabama Institute of Science and Technology	
9.	Dr. S. Prakash Dean (School of Mechanical Engineering), Sathyabama Institute of Science and Technology Member --Board of Research	
10.	Dr. Bhuvaneswari Dean (School of Management Studies), Sathyabama Institute of Science and Technology Member --Board of Research	
11.	Dr. M. Sundareswari Dean (School of Science & Humanities), Sathyabama Institute of Science and Technology Member --Board of Research	
12.	Dr. Dilshad Shaik, Dean (School of Law), Sathyabama Institute of Science and Technology Invitee --Board of Research	
13.	Dr. Thayumanavan Dean (Dental College and Hospital), Sathyabama Institute of Science and Technology Invitee --Board of Research	
14.	Dr. S. Bose Professor, Department of Computer Science, Anna University, Chennai Member --Board of Research	
15.	Dr. R. Govindaraj Senior Principal Scientist, CEERI Centre, CSIR Madras Complex, Taramani, Chennai Member --Board of Research.	

16.	Dr. A. Velayudham Scientist – F, Combat Vehicles Research&Development Establishment (CVRDE), Avadi, Member --Board of Research	
17.	Dr. Mukesh Doble Professor, University of Aston (UK), Department of Biotechnology, Bhopat Professor, Indian Institute of Technology Madras Member --Board of Research	KTH
18.	Dr. M. Alagar Professor, A.C. Tech Campus, Anna University, Chennai Member --Board of Research.	M. Alagar 01/09/18.
19.	Dr. E. Natarajan Professor, Institute for Energy Studies, Anna University, Chennai – 600025 Member --Board of Research	E. Natarajan
20.	Dr. M. Mathirajan Chief Research Scientist, Department of Management Studies, IISc, Bangalore. Member --Board of Research	Dr. Mathirajan