## INDIAN INSTITUTE OF INFORMATION TECHNOLOGY,

 DESIGN AND MANUFACTURING, KANCHEEPURAM38 ${ }^{\text {th }}$ MEETING OF THE SENATE

| Date | $:$ | $06^{\text {th }}$ October 2018 (Saturday) |
| :--- | :--- | :--- |
| Time | $:$ | 10.00 A.M. |
| Venue | $:$ | Senate Hall, IIITDM Kancheepuram. |

## MINUTES

| 2018-38- <br> Senate-01: | Welcome to the members and invitees by the Chairman. |  |  |
| :---: | :---: | :---: | :---: |
| 2018-38- <br> Senate-02: | To confirm the minutes of the $37^{\text {th }}$ meeting of the Senate held on $30^{\text {th }}$ June 2018 |  |  |
|  | The Minutes of $37^{\text {th }}$ Meeting of the Senate held on $30^{\text {th }}$ June 2018, duly approved by the Chairman of the Senate was circulated to all members. No comments/suggestions were received from the members. Senate may kindly confirm the Minutes of the 37th meeting of the Senate held on $30^{\text {th }}$ June 2018. |  |  |
| 2018-38- <br> Senate-03: | Report on Action Taken on the decision of $37^{\text {th }}$ meeting of the Senate held on $30^{\text {th }}$ June 2018. |  |  |
|  | 2018-37- <br> Senate-06: | M Tech Research Ordinance | Under revision |
|  | 2018-37- <br> Senate-07: | Approval is sought for M Sc in Mathematics from 2019 July onwards | Under process |
|  | 2018-37- <br> Senate-10: | Change of Rule in Make-Up examination | Implemented |
|  | 2018-37- <br> Senate-11: | Change of Rule for Supplementary examination | Implemented |
|  | 2018-37- <br> Senate-12: | Permission to go through the End Sem Papers and change of grade if any | Implemented |
|  | 2018-37- <br> Senate-14: | Permission to offer theory part alone of few courses as electives | Implemented |
|  | 2018-37- <br> Senate-15: | Online Electives from SWAYAM/NPTEL alone | Implemented |
|  | 2018-37- <br> Senate-16: | HTTA for Dual Degree Students | Implemented, however HTTA payment only from Oct 2018 as the students are in internship for 5 months |




| 3. | Acoustic and Audio Signal Processing | Dr Asutosh Kar |
| ---: | :--- | :--- |
| 4. | Networking with IPv6 | Dr. Hari T.S. <br> Narayanan |
| 5. | Ad Hoc Networks | Dr. Jagadeesh Kakkarla |
| 6. | Advanced Partial Differential <br> Equations* | Dr. Nachiketa Mishra |
| 7. | Computational Mathematics in <br> Engineering | Dr. Nachiketa Mishra |
| 8. | Mathematical Statistics | Dr. Nil Kamal Hazra |
| 9. | Stochastic Processes | Dr. Nil Kamal Hazra |
| 10. | Measure Theory | Dr. Nil Kamal Hazra |
| 11. | Reliability Theory* | Dr. Nil Kamal Hazra |
| 12. | Reconfigurable Computing | Dr Noor Mahammad <br> Sk |
| 13. | Advances in Manufacturing Processes <br> and Technology | Dr. P. Pandithevan |
| 14. | Electrochemical energy Conversion and <br> Storage | Dr. B. Raja |
| 15. | Material Science for Electrical and <br> Electronic Engineers | Dr. B. Raja |
| 16. | Algorithmic Graph Theory* | Dr. Sadagopan N |
| 17. | Recent Trends in Algorithm Design | Dr. Sadagopan N |
| 18. | Design of Heat Transfer Equipment | Dr. Shubhankar <br> Chakraborty |
| 19. | Inverse Heat Transfer | Dr. Shubhankar <br> Chakraborty |
| 20. | Photovoltaic Science and Engineering | Dr. Vivek Kumar |

The Senate may discuss and approve the proposed elective courses.
*These Courses are being offered for the PhD scholars who joined the Institute in July 2018 after the approval by the Chairman, Senate.

Senate is requested to ratify the decision.
[Annexure A3]
Senate has categorically advised the following:

- Elective courses shall be offered in the Institute after obtaining approval from the Senate.
- There shall be thorough discussions within the Dept. regarding the purpose, targeted students, course contents and utility of the course.
- Approval of the Departmental Academic Committee (DAC) is essential prior to proposing any elective in the senate.
- DAC may involve all the faculty members within a Department as the faculty count is very less at present.
- In case the proposed course is outside the expertise available within the Dept., approval of an IITM faculty member working in similar area may be sought.

|  | - It is not necessary that PhD Scholars should do all the four courses only in their research area. They could choose courses from allied areas also. <br> - Mathematics courses may have case studies applicable to Engineering as the mandate of the Institute. <br> - It was suggested to list the courses Dept wise for easy reference and the same is given below. <br> - The following facts need to be mentioned in the elective course contents page: <br> - The Date on which Department has approved the course contents <br> - Members present in the meeting <br> - External expert from whom suggestions/approval has been obtained (if any) <br> - Code of the elective course such as if it belongs to the 5XXX series or 6XXX series. <br> Specifically the Senate advised the following with respect to the 20 Elective Courses proposed in the $38^{\text {th }}$ Senate. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Sl. No | Name of Course | Proposed by | Dept. Offering |
|  | 1. | Networking with IPv6 | Dr. Hari T.S. Narayanan | CSE |
|  | 2. | Ad Hoc Networks | Dr. Jagadeesh Kakkarla | CSE |
|  | 3. | Reconfigurable Computing | Dr Noor Mahammad Sk | CSE |
|  | 4. | Algorithmic Graph Theory* | Dr. Sadagopan N | CSE |
|  | 5. | Recent Trends in Algorithm Design | Dr. Sadagopan N | CSE |
|  | 6. | Acoustic and Audio Signal Processing | Dr Asutosh Kar | ECE |
|  | 7. | Advanced Partial Differential Equations* | Dr. Nachiketa Mishra | MAT |
|  | 8. | Computational Mathematics in Engineering | Dr. Nachiketa Mishra | MAT |
|  | 9. | Mathematical Statistics | Dr. Nil Kamal Hazra | MAT |
|  | 10. | Stochastic Processes | Dr. Nil Kamal Hazra | MAT |
|  | 11. | Measure Theory | Dr. Nil Kamal Hazra | MAT |
|  | 12. | Reliability Theory* | Dr. Nil Kamal Hazra | MAT |
|  | 13. | Electrochemical energy Conversion and Storage | Dr. B. Raja | MEC |
|  | 14. | Material Science for Electrical and Electronic Engineers | Dr. B. Raja | MEC |
|  | 15. | Advances in Manufacturing Processes and Technology | Dr. P. Pandithevan | MEC |



|  | Pre-Registration and Registration windows for Jan-May 2020 was not marked in the Annexure A4 submitted with the Agenda. The dates for the same are included in the updated Calendar given in Annexure A4. It may kindly be approved. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 2018-38- <br> Senate-08: | Completion of Ph.D. defense <br> The following scholars have fulfilled all requirements for award of Ph.D degree. Date of completion, research work done by them and their guide are given below: |  |  |  |
|  | Name and Roll No |  | Area of Research | Research <br> Supervisor |
|  | Shri. Manikandan V. M, Roll No. COE14D001 | 27.07.2018 | Data Hiding Methods for Digital Image Security | Dr. V. <br> Masilamani |
|  | Shri. Renjith. P, Roll No. COE14D002 | 03.08.2018 | "On Spanning Trees Constraints, Variants and Generalizations (Theory, Algorithm and Dichotomy)". | Dr Sadagopan N |
|  | Provisional Certificate has been issued to the candidates. <br> Senate may please approve. <br> The Senate advised to include more details like list of Publications, Date of Registration, Date of Submission of Thesis, Date of receipt of Reports, List of Examiners etc. <br> Revised Table with all important data is given below for the kind perusal. |  |  |  |
|  |  |  |  |  |
|  | Name of the Scholar |  | Mr Manikandan V M |  |
|  | Roll No |  | COE14D001 |  |
|  | Stream |  | Computer Science a | d Engineering |
|  | THESIS TITLE: |  | DATA HIDING ME DIGITAL IMAGE | THODS FOR ECURITY |
|  | Date of Joining |  | 01-01-2014 |  |
|  | Date of Passing of C Examination | prehensive | 23-04-2015 |  |
|  | Date of Submission of | Thesis | 16-05-2018 |  |
|  | Indian Examiner |  | Prof R Govindaraj, Scientist, CSIR | enior Principal |
|  | Date of receipt of Re |  | 05-07-2018 |  |
|  | Forging Examiner |  | Prof. Nayeth Idalid Professor Principal, Gustavo Galindo V | olorzano Alcivar, ESPOL, Campus |
|  | Date of receipt of Re |  | 16-07-2018 |  |
|  | Date of Ph. D Viva-V | ce examination | 27-07-2018 |  |
|  | Date of Submission of | Final Thesis | 27-07-2018 |  |
|  | DOCTORAL COM | ITTEE |  |  |
|  | Chairman |  | Prof. S. Narayanan |  |


|  | Research Supervisor | Dr. V. M. Masilamani |
| :--- | :--- | :--- |
|  | External Member | Prof. A. N. Rajagopalan, IIT Madras |
|  | Internal Members | Dr Noor Mahammad Sk <br> Dr Priyanka Kokil |
|  | LIST OF PUBLICATIONS BASED ON THESIS <br> REFEREED JOURNAL ARTICLES |  |
|  |  |  |

1. V. M. Manikandan, V. Masilamani. "Histogram Shifting-Based Blind Water marking Scheme for Copyright Protection in 5G". Computers and Electrical En gineering , Elsevier, 2018 (Article in Press, Published online with doi: 10.1016/ j.compeleceng. 2018.03.007) - (SCI-E indexed)
2. V. M. Manikandan, V. Masilamani. "Reversible Data Hiding Scheme During Encryption Using Machine Learning". Procedia Computer Science, Elsevier, 2018 (Accepted for publication) - (Scopus indexed)
3. V. M. Manikandan, V. Masilamani. "A Novel Reversible Data Hiding Scheme that Provides Image Encryption". Journal of Image and Graphics, 2018 (Accepted for publication)
4. V. M. Manikandan, V. Masilamani. "Copy-Move Forgery Detection using Histogram Based Package Clustering and Sorted Consecutive Local Binary Patterns". International Journal of Control Theory and Applications, Serials publications, vol. 10, issue. 13, pp. 29-36, 2017

## PEER REVIEWED CONFERENCE PUBLICATIONS

1. V. M. Manikandan, V. Masilamani. "A Novel Lossless Compression Based Reversible Data Hiding Scheme with Arnold Transform". In: National Conference on Computational Intelligence in Electrical and Electronics Engineering, 2017, Chennai. (Received Best Paper Award)
2. V. M. Manikandan, V. Masilamani. "An Efficient Visually Meaningful Image Encryption Using Arnold Transform". In: Proceedings of IEEE Students’ Technology Symposium, pp. 266-271, 2016, IIT Kharagpur - (Scopus indexed)
3. V. M. Manikandan, V. Masilamani. "A Context Dependent Fragile Watermarking Scheme for Tamper Detection from Demosaicked Color Images". In: Proceedings of the 10th Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP), Article No.:61, ACM Digital Library, 2016, IIT Guwahati - (Scopus indexed)
4. V. M. Manikandan, V. Masilamani. "Real-time Scene Change Detection and Entropy Based Semi-fragile Watermarking Scheme For Surveillance Video Authentication". In: Proceedings of 3rd International Symposium on Big Data and Cloud Computing Challenges (ISBCC), pp. 101-110, Springer International Publishing, 2016, Chennai (Scopus indexed)
5. V. M. Manikandan, V. Masilamani. "A Modified SVD Based Watermarking with PCA Compression". In: Workshop on Applications of Computer Vision, Graphics and Image Processing (WACIG), 2014, IISc Bangalore
6. V. M. Manikandan, V. Masilamani. "Quadtree Based Secure Least significant Bit Watermarking". In: National Conference on Automata, Graphs and Logics (NAGL), Madras Christian College Chennai, 2015
7. Ayesha Sk, V. M. Manikandan, V. Masilamani. "A Combined SVD-DWT Watermarking Scheme with Multi-level Compression Using Sampling and Quantization on DCT Followed by PCA". In: Proceedings of 3rd International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA), pp. 141-149, Springer International Publishing, 2015, Bhuvaneswar-(Scopus indexed)

| Name of the Scholar | Mr Renjith P |
| :--- | :--- |
| Roll No | COE14D002 |


|  | Stream | Computer Science and Engineering |
| :---: | :---: | :---: |
|  | THESIS TITLE: | On Spanning Trees - Constraints, Variants and Generalizations (Theory, Algorithm and Dichotomy)" |
|  | Date of Joining | 01-01-2014 |
|  | Date of Passing of Comprehensive Examination | 24-04-2015 |
|  | Date of Submission of Thesis | 30-11-2017 |
|  | Indian Examiner | Dr. L. Sunil Chandran L, Professor, Computer Science and Automation, IISc Bangalore |
|  | Date of receipt of Report | 23-05-2018 |
|  | Foreign Examiner | Prof. Martin Charles Golumbic, Professor of Computer Science, University of Haifa |
|  | Date of receipt of Report | 19-06-2018 |
|  | Date of Ph. D Viva-Voce examination | 03-08-2018 |
|  | Date of Submission of Final Thesis | 03-08-2018 |
|  | DOCTORAL COMMITTEE |  |
|  | Chairman | Prof. S. Narayanan |
|  | Research Supervisor | Dr N Sadagopan |
|  | External Member | Prof C R Subramanian, IMSc, |
|  | Internal Members | Dr V Masilamani, Dr S Vijayakumar, |
|  | LIST OF PUBLICATIONS BASED REFEREED JOURNAL ARTICLES | ON THESIS |

1. P. Renjith and N. Sadagopan. "The Steiner tree in K1;r-free split graphs A Dichotomy". Discrete Applied Mathematics. DOI: 10.1016/j.dam.2018.05.050
2. Krishna Mohan Reddy, P. Renjith and N. Sadagopan. "Listing All Spanning Trees in Halin Graphs - Sequential and Parallel view". Discrete Mathematics Algorithms and Applications, vol. 10(1), World Scientific Publishing. DOI: 10.1142/s1793830918500052

## PEER REVIEWED CONFERENCE PUBLICATIONS

1. P. Renjith and N. Sadagopan. " Hamiltonian Path in K1;t -free Split Graphs- A Dichotomy". CALDAM 2018, LNCS 10743 - Springer, pp. 30-44, 2018. DOI: 10.1007/978-3-319-74180-2 3
2. P. Renjith and N. Sadagopan. "Hamiltonicity in Split Graphs - A Dichotomy". CALDAM 2017, LNCS 10156-Springer, pp. 320-331, 2017. DOI:10.1007/978-3-319-53007-9 28
3. Madhu Illuri, P. Renjith and N. Sadagopan. "Complexity of Steiner Tree in Split Graphs - Dichotomy Results". CALDAM 2016, LNCS 9602 - Springer, pp. 308-325, 2016. DOI:10.1007/978-3-319-29221-2 27
4. Krishna Mohan Reddy, P.Renjith and N.Sadagopan: "Enumeration of Spanning trees in Halin Graphs - Parallel Perspective", in the proceedings of 31st Annual Conference of Ramanujan Mathematical Society, National College, Trichy, June 2016.
5. Vandhana.C, S.Hima Bindhu, P.Renjith, N.Sadagopan and B.Supraja. "Spanning Tree Enumeration in 2-trees: Sequential and Parallel Perspective", ICGTA, Amrita University, Coimbatore, India, 2015.
2018-38- $\quad$ Minimum Marks to be scored by the PhD Scholars for NPTEL Courses Senate-09:

Senate has already given approval for PhD scholars of the Institute to credit

|  | courses offered by the NPTEL based on approval by the Doctoral Committee. However, as the PhD course work requires for the scholar to maintain a minimum CGPA of 7.5, it is found necessary to keep a minimum mark to be scored by the scholar for the NPTEL courses. <br> Senate is requested to advise on keeping the minimum marks to be scored by a PhD scholar for the NPTEL course as 75. |
| :---: | :---: |
|  | Senate has advised to keep the minimum marks to be scored by a PhD scholar for the NPTEL course as 65 . |
| 2018-38- <br> Senate-10: | Allowing PhD Scholars to credit Courses from CMI - Proposal from Dept. of Mathematics <br> As Graduate level courses in Mathematics offered in the Institute are very less, it is proposed to permit the PhD Scholars joining the Mathematics Department to credit courses offered by Chennai Mathematical Institute as part of their course work. <br> CMI has M.Sc. In Mathematics, Computer Science, Data Science and Applications of Mathematics. The Senate is requested to provide approval for crediting the courses from M.Sc. Data Science and M.Sc Applications of Mathematics. The courses are listed below: <br> Programming and Data Structures with Python (MSc. Data Sc) <br> Linear Algebra and its Applications (MSc. Data Sc) <br> Stochastic Process (MSc. Applications of Mathematics) <br> Senate is also requested to consider accepting the Grades given by CMI. |
|  | The Senate has given in-principle approval for PhD Scholars from any Dept. to credit courses offered in reputed Institutes in Chennai like IIT Madras, CMI, IMSc, ISI etc. A formal MoU in this regard needs to be signed with the respective Institute so that the studnets once crediting the courses need not have to pay any fee and would be issued with Grade Cards by the respective Institute. The credits so earned by the students shall be accounted as the credits earned by the student by credit transfer from that Institute to IIITDM. Other possibilities which permits the pre-final year students to register and spend their final year at those Institutes may also be explored in the MoU. <br> It is submitted that such MoU's prepared by consulting with the respective Institute shall be put up in the succeeding Senate meetings for kind perusal and approval. |
| 2018-38- <br> Senate-11: | To consider fixing the Convocation Day of the Institute as $2^{\text {nd }}$ Saturday of July every year. <br> Having the Institute convocation on a fixed day may enable effective preplanning and smooth conduct of the event. Also it has been observed in the previous years that the Graduands who get admits for higher studies abroad would have to leave the country by third week of July. Hence the Senate may please consider and approve the proposal. |
|  | The Senate has given approval for the same. However, the Senate has also agreed that the Institute has the flexibility to change the date in any unavoidable circumstances. |


|  | To ratify the decision of Disciplinary Committee on act of indiscipline and <br> misconduct by student in the Institute on Student disciplinary cases: <br> Mr. JAVVADI GUNIN RUTHWIK (MSM18B019) who was writing his Quiz-1 <br> examination of INT 107T - English for communication course on 29.08.2018 <br> FN, was found receiving help through signs for objective type questions from his <br> friend Mr. GUNURU MANOHAR SRINIVAS (COE18B022) who was outside <br> examination hall. <br> Mr.GUNURU MANOHAR SRINIVAS was caught outside the exam hall by the <br> Invigilator Dr.Masilamani (opposite exam hall), while he was giving signals to <br> his friend. <br> Findings: The Committee investigated the above case. The concerned students <br> appeared before the committee and accepted that both of them were involved in <br> the aforesaid indiscipline activities. Both of them also conceded that it was <br> Mr.JAVVADI GUN IN RUTHWIK who first sought help from Mr.GUNURU <br> MANOHAR SRINIVAS by signaling him while he was crossing the exam hall. <br> Following this, the committee recommended the following punishments <br> consistent with senate recommendations, subject to the approval of the <br> Competent Authority. <br> $\mathbf{2 0 1 8 - 3 8 - ~}$ |
| :--- | :--- |
| Senate-12: |  |
| 1. The erring student Mr. JAVVADI GUNIN RUTHWIK (MSM18B019) shall |  |
| be awarded 'U' grade in the subject concerned for the semester Jul-Nov 2018 |  |
| and 16 hours of Community Service. |  |
| 2. The erring student Mr. GUNURU MANOHAR SRINIVAS (COE18B022) |  |
| shall be awarded 'Zero' marks in the concerned subject for Quiz-1 alone for |  |
| the semester Jul-Nov 2018. |  |
| The Senate may ratify the decision of the institute. |  |

$\left.\begin{array}{|l|l}\hline & \begin{array}{c}\text { applicable for similar cases and submitted below for kind perusal and approval of } \\ \text { the Senate. } \\ \text { 1. The M Tech student should have completed the 1st and 2nd semester } \\ \text { course work successfully }\end{array} \\ \text { 2. He/she would be visiting the institute two days in a month to have } \\ \text { discussions with the project guide } \\ \text { 3. He/she should be attending the project reviews conducted by the } \\ \text { department } \\ \text { 4. The project duration shall be extended to two years as compared with one } \\ \text { year for the regular students. } \\ \text { 5. The location of the job posting is to be within 100 km from the Institute. } \\ \text { 6. He/she has to enroll every semester in person by paying the requisite fee. } \\ \text { 7. He/she should submit the necessary clearance certificates from all sections, } \\ \text { labs, Hostel and library for getting relieved to join the job. } \\ \text { 8. No HTTA is payable as he/she would be in remunerative job. } \\ \text { Accordingly, Mr. Siddalingeshwara V Hallur was permitted to join BSNL subject } \\ \text { to fulfillment of the above mentioned conditions: } \\ \text { And, as Mr. Siddalingeshwara V Hallur has joined the post graduate programme } \\ \text { in 2017, he would be graduating only in 2020, on successful completion of his } \\ \text { project work. } \\ \text { The permission given to the student is provisional and subject to approval of the } \\ \text { Senate. In case of non-fulfillment of any of the above mentioned conditions, an } \\ \text { appropriate decision could be taken by the Competed Authority. } \\ \text { The Senate may consider ratifying the permission given to Mr. Siddalingeshwara }\end{array}\right\}$


|  | Can he be given stipend for three years? Senate is requested to advise. |
| :--- | :--- |
|  | As the GATE Score is valid for 3 years for higher studies or job but only 2 years <br> for scholarship, the student can be given HTTA only for two years as he has been <br> admitted into the Master of Technology in Mechanical Engineering with <br> Specialization in Mechanical Systems Design in July 2018 with the same GATE <br> Score as he got admitted into the Master of Technology in Smart Manufacturing <br> in 2017. Hence the student shall be eligible for fellowship only during the first <br> year of his M Tech programme in Mechanical Engineering with Specialization in <br> Mechanical Systems Design. |

The next meeting of the Senate will be held in December 2018.
(Dr. Binsu J Kailath)
Dean Academics
(Prof. B. Majhi)
Chairman

