

Minutes of Meeting 10-05-2024

The 3rd Board of Research Studies of School of Engineering & Technology was held on 10th of May 2024 in hybrid mode (online/in-person) under the chairmanship of Prof. Shakil Ahmad Romshoo, Hon'ble Vice Chancellor. The meeting was attended by following physically:

- I. Prof. Shakil Ahmad Romshoo (Vice Chancellor/Chairman BORS)
- II. Prof. A. H. Moon (Professor, Dept. of Electronics & Communication Engineering/ Dean Academic Affaris)
- III. Prof. Sheikh Javid Ahmed (Dean Research)
- IV. Dr. Waseem Bari (Registrar/ Controller of Examinations)
- V. Dr. Kaisar Javeed (I/C Dean, School of Engg. & Technology / HoD Computer Science)
- VI. Prof. Sajad Ahmad Loan (Head, Dept. of E&CE, JMI New Delhi)
- VII. Dr. Faroze Ahmad (Head, Department of E&CE, IUST)
- VIII. Dr. Tariq Ahamd Ganaie (Head Department of Food Technology, IUST)
- IX. Dr. Sajaad Ahmed Lone (Head, Department of CS&E, IUST)
- X. Dr. Ovais Gulzar (Head, Department of Mechanical Engineering, IUST)
- XI. Mr. Raves Ahmad Lone (Head, Department of Electrical Engineering, IUST)
- XII. Mr. Mir Aijaz Ahmad (Head, Department of Civil Engineering, IUST)
- XIII. Dr. Rumaan Bashir (Associate Professor, Computer Science, IUST)
- XIV. Dr. Javaid Iqbal Bhat (Associate Professor, Computer Science, IUST)
- XV. Dr. Shahkar Ahmad Nahvi (Assistant Professor, Dept. of Electrical Engineering)
- XVI. Dr. Basharat Nabi Dar (Assistant Professor, Department of Food Technology)
- XVII. Dr. Assif Assad (Assistant Professor, Department of Computer Science Engineering)
- XVIII. Dr. Muzafar Rasool Bhat, Assistant Professor, Department of Computer Science)
 - XIX. Dr. Shujaat Hussain (Assistant Professor, Department of Civil Engineering)
 - XX. Dr. Mahvash Afzal (Assistant Professor, Department of Mechanical Engineering)
 - XXI. Dr. Shakeel Ahmad Malik (Assistant Professor, Department E&CE)
- XXII. Mr. Saqib ul Sabha, Ph.D Scholar, Department of CS&E (Scholar representative, SOE&T)

Further, the following subject experts attended the meeting in the online mode.

- I. Prof. Dr. M. N. Hoda (Professor & Director, BVICAM, New Delhi)
- II. Prof. Mohammad Shafi Mir (Professor, Department of Civil Engineering, DAA NIT Stinagar)
- III. Prof. Paramjit S. Panesar (Professor, Dept. of Food Engineering & Technology, SLIET, Sangrur Punjab)
- Prof. Babar Ahmad (Professor, Department of Mechanical Engineering, NIT Srinagar)
- V. Prof. Mairaj Ud Din Mufti (Professor, Department of Electrical Engineering, NIT Srinagar)
- VI. Dr. Mohammad Ahsan Chishti (Head, Department of CSE NIT, Srinagar)

At the outset, Dean Research, Prof. Sheikh Javid Ahmed, welcomed the members present online/in-person. Dean Research remarked that the 3rd BORS meeting of SOE&T is the first BORS meeting that has been coordinated by the Office of the Dean Research with Hon'ble Vice Chancellor as Chairman of the Board.

BORS Chairman, Prof. Shakil Ahmad Romshoo in his welcome address highlighted the significance of holding timely BORS meetings across the various Schools of the University. He stressed that the Departments should hold the pre-BORS meetings at the School level in order to examine the agendas before placement in BORS. The Heads of the Departments were stressed that as per the University Ordinance, Schools have to hold the BORS meeting twice a year. He also remarked the significance of the Departmental Research Committee (DRC) by acting as the first check-point for the quality research.

Thereafter, the agenda of the meeting was placed before the board by Mohd Yousf Bhat, Assistant Registrar (Research) for consideration.

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Agenda 1(3); Confirmation of Minutes of 2nd BORS Meeting of SoET held on 13-10-2022

AR Research informed the Board that the 2nd meeting of Board of Research Studies of School of Engineering & Technology which was held on 13-10-2022 and minutes, thereof, were circulated by Dean School of Engineering & Technology vide endorsement No. IUST/DSOET/BORS/23/211-218 dated 25-01-2023. Since no comments were received, therefore, the Board adopted the following resolution:

"Resolved that the minutes of the 2nd Board of Research Studies of School of Engineering and Technology issued under endorsement No. IUST/DSOET/BORS/23/211-218 dated 25-01-2023 are confirmed".

Agenda 2(3): Action Taken Report on the agenda items of 2nd BORS.

Board expressed satisfaction on the actions taken by the Departments on the decisions of the 2nd BORS of SoE&T. Further Board also approved the revised synopses of the two scholars of Department of Computer Science as per the following details under action taken report:

S.No.	Name of the Scholar	Registration No. & Date	Title of Synopsis	Name of the Supervisor	Co- Supervisor	SRAC Members
01	Abdul Basit Ahanger	IUST0119013139 03-09-2020	Leveraging Artificial Intelligence to Identify Deregulated Oncogenic Signalling Pathways in Brain Tumors from Magnetic Resonance Imaging (MRI)	Dr. Muzafar Rasool Bhat	Dr. Muzafar A.Macha	Dr. Kaiser Javeed Dr. Assif Assad
02	Syed Wajid Alam	IUST0119013137 01-09-2020	Identification of Deregulated Oncogenic Signalling Pathways and Risk of Metastasis in Esophageal Cancer based on H&E Stained Digital Histopathological Data using Artificial Intelligence	Dr. Muzafar Rasool Bhat	Dr. Muzafar A.Macha	Dr. Javaid Iqbal Dr.Assif Assad

DEPARTMENT WISE AGENDA

1. DEPARTMENT OF FOOD TECHNOLOGY

Agenda 3(3): Confirmation /approval of Dr. Farhana Mehraj Allai, Assistant Professor as supervisor.

The Departmental Research Committee of Department of Food Technology in its meeting held on 30-05-2023 has recommended that **Dr. Farhana Mehraj Allai**, Assistant Professor may be approved as Supervisor. After going through the CV of Dr. Farhana Mehraj Allai, besides detailed deliberations, the Board adopted the following resolution:

> "Dr. Farhana Mehraj Allai, Assistant Professor, Department of Food Technology is approved as Supervisor in the Department".

Agenda 4(3): Approval of registration, supervisor, co-supervisor, SRAC and Title of Synopsis for the following Scholars:

The synopses following nine scholars were placed before the Board for consideration.

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S. No	Name of Scholar	Registration No.	Date of Registration	Name of Supervisor
1.	Nusrat Maqbool	IUST0117010719	20-09-2021	Dr. Thameed Aijaz
2.	Bisma Ashraf	IUST0120014494	20-09-2021	Dr. Suman Vikas Bhat

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3.	Toiba Majeed	TUST0120014524	20-09-2021	Dr. Aamir Hussain Dar
4.	Najmeenah Akhter	TUST0120014525	20-09-2021	Dr. Darakshan Majid
5.	Tanveer Ahmad Mir	IUST0120014526	20-09-2021	Dr.Tariq Ahmad Ganaie
6.	Mehvish Majeed	IUST0116008063	14-07-2022	Dr. Darakshan Majid
7.	Falak Habeeb	IUST0121015683	14-07-2022	Dr. Basharat Nabi Dar
8.	Nusrat Bhat	IUST0121015696	18-07-2022	Dr. Thameed Aijaz
9.	Insha Fayaz	IUST0115006954	14-07-2022	Dr. Hilal Ahmad Makroo

Prof. Paramjit S. Panesar, Expert member of the Department of Food Technology suggested some changes in the objectives of the synopses. Further Hon'ble Vice Chancellor observed that some particular faculty member(s) have been included as member of SRAC in all the above said scholars and desired that SRAC may be reconstituted so that other faculty members are also included as SRAC members. After detailed deliberations on the agenda item, the Board adopted the following resoulation:

"The synopses are approved with the changes/modifications as indicated against each scholar. However, the SRAC members shall be re-framed by the Department, so that every faculty member is involved in research guidance through SRAC".

S. no.	Name of Candidate	Title of Synopsis	Changes Suggested by BORS
1.	Nusrat Maqbool	Ultrasound-assisted Parboiling of Indigenous Aromatic Rice (Mushk Budji): Studies on Drying, Milling, Cooking and Nutritional Properties	Objectives: 2. To optimize the process of ultrasound assisted parboiling of rice Objective 3: Physicochemical characterization of paddy should be added.
2.	Bisma Ashraf	Microbial Analysis of Salad Vegetables and Controlling Measures	Title should Contain UVC-LED. Format not followed: Mention objectives separately prior to methodology
3.	Toiba Majeed	Exploring the Potential of Under- utilized Pulse Vetch and Hackberry for the Development of Functional Packaging	In the methodology of objective 1, in sentences "Pea protein isolate will be characterized on the basis of physico-chemical propertiesreplace word "Pea' with 'Vetch' SEM analysis (if possible)
4.	Najmeenah Akhter	Himalayan Fruit and Cereal Based Probiotic Formulation: Its Potential for Baby Food Application	Title is vague Objective 1: Specify Fruit and Vegetables/cereals. Objective 2: Specify Probiotic Strains.
5.	Tanveer Ahmad Mir	Development and Characterization of Saffron Petal Extract-zein Nanocomplexes and their Application in Preservation of Kashmiri Himalayan Snow Trout (Schizothorax plagiostomus) Fillets	Objective 1 "To isolate zein protein from LQMH1 hybrid maize variety" can be written as "To isolate zein protein from maize, nano-reduction and their characterization. In the methodology of objective 1, section 7.1.12 onward can be written under a separate heading "Nano-reduction of zein protein isolate".
6.	Mehvish Majeed	Development and Characterization of Himalayan Millet based Flat Bread and Evaluation of its Efficacy against Diabetes.	Objective 1 (xi): Mention the purpose of extraction of starch and protein
7.	Falak Habeeb	Exploring the Therapeutic Potential of Duckweed Biopeptides for Formulating Innovative Functional Foods.	Objective 4: Storage studies/shelf-life studies of developed functional food should be added

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8.	Nusrat Bhat	Electric Field and Pressure Assisted Extraction of Oil and Protein from Oryza Sativa var. Mushkbudji Bran and their Characterization.	Objective 3: SEM, XRD should be carried out for extracted protein hydrolysate
9.	Insha Fayaz	Ultrasound Assisted Dispersion of Nano Eggshell Powder for the Development of Biodegradable Packaging Systems.	Reframe Objectives as: Objective 1 To prepare the eggshell nanoparticle and its characterization" Objective 2, To assess the impact of Ultrasound assisted dispersion" In Objective 3, "its properties" can be changed as "its characterization" Application of developed packaging material should be added as separate objective

2. DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Agenda 5(3): Approval of new elective courses and syllabus.

The recommendations of Departmental Research Committee of Computer Science & Engineering dated: 22-03-2024 regarding introduction of the following courses along with syllabi were placed before the Board for approval:

"Applied Cryptography, Cyber Physical Systems, Data Analytics using Python, Cybersecurity for Internet of Things, Artificial Intelligence of Things, IoT Communications and Networks, Data Warehousing and Data Mining, Statistical Methods in Decision Making, Human Computer Interaction, Social Network Security and Analysis, Health Informatics, Mathematical Foundations for Computer Science, Next-Generation Data Structures and Algorithms".

After detailed deliberations, the Board adopted the following resolution:

"All the elective courses and syllabus were approved for inclusion in PhD course work with following changes.

- a) Unitization of the courses shall be as per credits, with one unit for each credit;
- b) Detailed syllabus to be included in course Data Analytics using Python;
- Cyber Security related text books to be added in course Cybersecurity for Internet of Things;
- d) Course title to be changed to Artificial Intelligence for Internet of things instead of Artificial Intelligence of things;
- e) Text Books to be added in course Data Warehousing and Data Mining;
- f) Course title to be changed to Advanced Data Structures and algorithms instead of Next Generation Data Structures and algorithms and text books to be added accordingly".

Agenda 6(3): Ratification of approval of Dr. Sajaad Ahmed Lone, Sr. Assistant Professor as Supervisor

Dr. Sajaad Ahmed Lone, Assistant Professor, Department of Computer Science & Engineering was approved as the Research Supervisor by the Hon'ble Vice Chancellor and subsequently an order was issued in his favour, the same was placed before the board for ratification.

After detailed deliberations, the Board confirmed the action taken by Vice Chancellor and adopted the following resolution:

"The action taken by Vice Chancellor by approving Dr. Sajaad Ahmed Lone, Sr. Assistant Professor as Supervisor in the Department is ratified".

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Agenda 7(3): Approval of registration, supervisor, co-supervisor, SRAC and Title of Synopsis for the following Scholars:

The synopses of four scholar S.No. 01 to 04 were placed before the Board for consideration.

S. No	Name of Scholar	Registration No.	Name of Supervisor	Name of Co - Supervisor	Date of Reg.	Title of Synopsis	SRAC
01	Shela Rafiq	IUST0121015697	Dr. Assif Assad	-	19-07-2022	Enhancing the Prediction of On-Target and Off- target Effects of CRISPR/Cas9-sgRNA Using Deep Learning Approach	1.Dr Ahsan Hussain 2.Dr Muzafar Rasool
02	Asifa Nazir	IUST0121015701	Dr. Ahsan Hussain	Dr. Mandeep Singh	20-07-2022	A Novel Approach to Head and Neck Cancer Diagnosis: Integration of Holographic Imaging and Deep Learning	1.Dr. Assif Assad 2.Dr. Syed Zubair Ahmad Shah
03	Aga Basit Iqbal	IUST0121015704	Dr. Syed Zubair Ahmad Shuh	500	20-07-2022	Identification of Novel Inhibitors for Therapeutic Targets in Cancers Using Graph Neural Networks	1.Dr.Asif Assad 2.Dr.Muzaffar Macha
04	Salma Fayaz	IUST0120014511	Dr. Syed Zubair Ahmad Shah	-	20-09-2021	A Novel Contrast Based Learning Algorithm for Multiclass Classification	1.Dr.Asif Assad 2.Dr.Ahsan Hussain
05	Mubashir Farooq	IUST0121015702	Dr. Asif Ali Banka	UT:	20-07-2022	Synopsis not submitted	1.Dr.Sahil Sholla 2.Dr.Adil Bashir

After detailed deliberation, the Board adtopted the following resolution:

"The synopsis, supervisor of the above mentioned four scholars falling at S.No. 01 to 04 were approved by the board, while as the registration of the scholar mentioned at S.No. 05 will be approved by the board in its next meeting as he is yet to submit the synopsis. Further, the SRAC for the above mentioned four scholars shall be re-constituted to involve maximum number of faculty in research guidance of the scholars. Further, the Department has communicated that the scholar at S.No. 1 is having the typo error in the name in DRC minutes and her correct name is Shehla Rafiq instead of Shela Rafiq".

Agenda 8(3): Approval of registration, supervisor, co-supervisor, SRAC and Title of Synopsis for the following Scholars:

The Board of Research Studies of SoE&T in its 2nd meeting had recommended the synopsis of the below mentioned 07 scholars with the remarks that the objectives need to be revised / rewritten with clear and specific objectives along with the trader outcomes and evaluation metrics to be identified for combarison with state of the art.

S. No.	Name of Scholar	Registration No.	Name of Supervisor	Date of Reg.	Title of the Synopsis	SRAC
1	Nusrat Mohi Ud Din	IUST0119013125	Dr. Assif Assad	24-08-2020	Deep Reinforcement Learning for Small and Imbalanced Datasets	1. Dr. Syed Zubair Ahamd Shah 2. Dr. Kaiser Jayeed

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2	Naillah Gul	IUST0119013132	Dr. Syed Zubair Ahmad Shah	27-08-2020	Deep Learning for Snow & Glacial Feature Identification using Satellite Imagery	1. Dr. Syed Zubair Ahmad Shah 2. Dr. Assif Assad Dr. Ahsan Hussain
3	Irfan Rasool	IUST0119013128	Dr. Ahsan Hussain	24-08-2020	Deep Learning Models for Analysing Histopathological Images with focus on Ovarian Cancer	Assif Assad Dr. Syed Zubair Ahmad Shah
4	Nadish Ayoub	IUST0119013119	Dr. Syed Zubair Ahmad Shah	24-08-2020	Early Detection of Alzheimer's Disease Using Deep Learning	1. Dr. Assif Assad 2. Dr. Ahsan Hussain
5	Tabusum Majeed	IUST0120014309	Dr. Assif Assad	15-04-2021	Deep Learning for Analysing H&E Stained Digital Histopathology Images with Special Focus on Head and Neck Cancer	1. Dr. Asif Ali Banka 2. Dr. Asifa Baba
6	Adil Mudasir Malla	IUST0120014516	Dr. Asif Ali Banka	20-09-2021	Deep Graph Analytics for De nova Drug Design	1.Dr. Sahil Sholla 2.Dr. Rais Ahmad Gana
7	Rafiya Jan	IUST0120014493	Dr. Ahsan Hussain	20-09-2021	Cancer Interactome: Identifying Interactions of Cancer Proteins Using Graph Based Learning	1.Dr. Assif Assad 2.Dr. Syed Zubair Ahma Shah

The DRC in its meeting held on 07-07-2023 has recommended the revised synopsis of the all the above 07 scholars. Further, the DRC in its meeting held on 17-08-2023 has recommend the change of title of the scholar namely Rafiya Jan. The DRC recommendations dated: 07-07-2023 and 17-08-2024 were considered and after detailed deliberations the following resolution was adopted by the Board

"The synopsis of the 07 scholars as mentioned above are approved. Furthermore the SRAC of the candidates need to be re-constituted to involve maximum number of faculty available in the Department for research guidance of the scholars"

3. DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Agenda 9(3): Approval of syllabus "RF & Microwave Engineering" and "Antennas & Radiating Systems"

The Departmental Research Committee of Electronics & Communication Engineering in its meeting held on 02-06-2023 has recommended that the courses, "RF & Microwave Engineering" and "Antennas & Radiating Systems" be placed before the BORS for approval.

The Board observed that the syllabus of the said courses in present format is not acceptable as there is no uniformity in course structure and after detailed deliberations Board adopted the following resolution:

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"The Courses are not approved in its current form and the Head of the Department was suggested to re-frame the syllabi as per the standard format devised by the Dean Academic Affairs Office".

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Agenda 10 (3): Approval of registration, superviost, co-supervisor, SRAC and Title of Synopsis for the following Scholars:

The synopsis of the following scholar was placed before the Board for condieration.

S. No	Name of Scholar	Registration No.		Name of Co - Supervisor	Date of Reg.	Title of Synopsis	SRAC
01	Nazia Farooq Shaikh	IUST0120014477	Dr. Khalid Muzzafar	Dr. Shakeel Ahmad Malik	17-09-2021	Antenna Design	1.Dr. Faroze Ahmad 2.Dr. Liyaqat Nazir

After detailed deliberation on the agenda item, the Baord adopted the following resolution:

"The synopsis of the scholar is approved".

Agenda 11(3): Correction in Name of Scholars

The Board has approved the correction in the name of scholars supervised by Dr. Asifa Mehraj Baba and adopted the following resolution:

"Haweez Showkat Koul" and "Rohun Nisa" may be read instead of "Haweez Showkat" and "Rooh-un-nisa" respectively as mentioned in the minutes of the BORS dated 17.11.2020.

Agenda 12(3): Confirmation /approval of Dr. Romana Yousuf, Assistant Professor as supervisor.

The Departmental Research Committee (DRC) of the Department of Electronics and Communication Engineering in its meeting held on 19-04-2024 has recommended that Dr. Romana Yousuf, Assistant Professor may be approved as Supervisor. The Board after detailed deliberation, besides going through the detailed CV of Dr. Romana Yousuf adopted the following resolution:

> "Dr. Romana Yousuf, Assistant Professor, Department of Electronics & Communication Engineering is approved as a Supervisor in the Department".

4. DEPARTMENT OF COMPUTER SCIENCE

Agenda 13(3): Approval of registration, supervisor, co-supervisor, SRAC and Title of Synopsis for the following Scholars:

The synopses of following 08 scholars of Department of Computer Science were placed before Board for conideration.

S. No.	Name of Scholar	Registration No.	Name of Supervisor	Name of Co- supervisor	Date of Reg.	Title of Synopses	SRAC
1.	Novsheena Rasool	IUST0116007971	Dr. Javaid Iqbal Bhat	•	20-09-2021	Deep Learning-Based Glioma Brain Tumor Segmentation for Enhanced Patient Care and Survival Prediction	Javeed 2.Dr. Muzafar

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2.	Masooda Masarat	IUST0120015147	Dr. Rumaan Bashir	2	03-11-2021	A Deep Learning Based System for Kashmiri Text Classification	
3.	Danish Nazir Raja	IUST0115006665	Dr. Kaisar Javeed		21-09-2021	Computers by Voice: An AI-Based Speech Transcription System for the Kashmiri Language	Bashir 2.Dr. Muzafar Rasool Bhat
4.	Anayet Ullah Dar	IUST0120014313	Dr. Muzafar Rasool Bhat		19-04-2021	Mapping Permafrost Distribution in the Northwestern Himalaya Using Hyperspectral Images	Rumaan Bashir 2.Dr. Kaisar Javeed
5.	Rafia Amin	IUST0118011544	Dr. Rumaan Bashir		03-08-2022	Devleopment of Artificial Intelligence	1.Dr. Javaid Iqbal Bhat 2.Dr. Kaisar Javeed
6.	Sheezan Farooq	IUST0121015692	Dr. Rumam Bashir	8	18-07-2022	Development of Efficient Technique for Sentiment Analysis in Kashmiri Text Using Deep Learning	Iqbal Bhat
7.	Iqra	IUST0118011623	Dr. Kaisar Javeed	28	28-02-2022	Development of an	Bashir 2.Dr. Javaid
8.	Ab Naffi Ahanger	IUST0116008947	Dr. Muzafar Rasool Bhat	Dr. Muzafar A. Macha (AP, WCCMM, IUST)	18-07-2022	Framework for Prediction of Tumour	Ahmad Shah

The subject expert Prof. M. N. Huda suggested rephrasing the title of the synopses along with objectives in order to ensure clarity of research work. Accordingly, the synopses presented by were deliberated upon in the Board & it was agreed that title & respective objectives of the synopses be rephrased as recommended by the subject expert. After detailed deliberation, the Board adopted the following resolution:

"The synopses of the above said 08 scholars of Department of Computer Science is approved with rephrased title and objectives as given below against each scholar".

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s. No	Name of Scholar	Rephrased Title	Rephrased Objectives				
1	Novsheena Rasool	A Novel Glioma Brain Tumor Segmentation Framework using Deep Learning	 To conduct in-depth literature review for analysing existing techniques in brain tumor segmentation. To develop a novel deep learning model for precise segmentation of glioma brain tumor. To utilize the segmentation outcomes achieved in (2) for effective patient care and survival prediction. To evaluate the proposed model by employing standard metrics & benchmark datasets and to compare its performance with existing models. 				
2	Masooda Masarat	A Novel System for Kashmiri Text Classification using Deep Learning	 To conduct in-depth literature review for analysing existing text classification techniques. To create a dataset of Kashmiri text. To develop a novel deep learning model for Kashmiri text classification. To evaluate the proposed model by employing various standard metrics & compare it with existing models. 				
3	Danish Nazir Raja	An Artificial Intelligence Based Speech Transcription System for Kashmiri Language	To conduct in-depth literature review for analysing existing speech transcription techniques. To create Kashmiri audio digital dataset. To develop artificial intelligence based model for Kashmiri speech transcription. To evaluate the proposed model by employing standard evaluation metrics.				
4	Anayet Ullah Dar	Deep Learning Framework for Mapping Permafrost Distribution in the Northwestern Himalaya using Hyperspectral Images	To develop a dataset, that incorporates multi spectra remote sensing data fused with other sources including LST, Slope & MAAT for a robust representation of study area. To develop a deep learning model for mapping the permafrost distribution over the north western Himalayas. To leverage the established permafrost map for comparative evaluation with the proposed model.				
5	Rafia Amin	Design & Development of an Artificial Intelligence Based Model for Kashmiri Script Identification	To conduct in-depth literature review for analysing existing script identification techniques. To create an image dataset containing machine writter Kashmiri text. To develop a novel artificial intelligence based model for Kashmiri Script Identification.				
6	Sheezan Farooq	Design & Development of Efficient Model for Sentiment Analysis in Kashmiri Text using Deep Learning					
7	Iqra	Design And Development of an Efficient Deep Learning-Based Technique for Small Object Detection	To conduct in-depth literature review for analysing existing object detection techniques on benchmark smal object detection datasets. To optimize the techniques reviewed in (1) by employing data augmentation, multi-scale feature learning and multi-scale training.				

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			 To develop an efficient deep learning based technique for small object detection. To compare & evaluate the proposed detector with the detectors optimized in (2).
8	Ab Naffi Ahanger	A Novel Framework for Prediction of Tumour Heterogeneity from Histopathology Images in Gastric Cancer Patients using Deep Learning	 To collect and annotate dataset containing Whole Slide Images (WSIs) along with corresponding labels. To design and develop a segmentation model for extraction of tumour regions from WSIs. To design and develop a deep learning architecture for prediction of inter-tumour heterogeneity on the basis of molecular subtypes. To design and develop a deep learning architecture for prediction of intra-tumour heterogeneity.

Agenda 14(3): Correction of the typographical error in the synopsis title of the scholar, Ovais Rashid Khan

With regard to the minutes of the meeting of 2nd BoRS held on 13-10-2022 issued by Office of the Dean SoET and Office Order vide No: 12 (Res) OF 2023 Dated: 03-03-2023 issued by Office of the Dean Research, it has come to the observation of the DRC that there is a minor typographical correction required in the title of scholar namely which may have occurred inadvertently. The details of title are given below:

Title with Typo Error	Correct Title
Content Based Indexing of Retrieval of Images	Content Based Indexing and Retrieval of Images using Deep
using Deep Learning	Learning

The Board has considered the recommendations of DRC regarding a minor typographical correction and adopted the following resolution:

"The correct title of synopsis of Mr. Ovais Rashid Khan is 'Content Based Indexing and Retrieval of Images using Deep Learning"

Agenda 15(3): Approval of syllabus "Quantum Computing"

The Departmental Research Committee of Computer Science in its meeting held on 30-04-2024 has recommended that the course **Quantum Computing** be placed before the BORS for approval. The board reviewed that syllabus and suggested that syllabus needs to be upgraded as per Ph.D level. After detailed deliberations, the Board adopted the following resolution:

"The syllabus of quantum computing shall be replaced and upgraded to the Ph.D Level"

5. DEPARTMENT OF CIVIL ENGINEERING

Agenda 16(3): Ratification of the Course CEN-800_Seminar as a 2-Credit Course.

The Department of Civil Engineering had proposed introduction of 02 credit course seminary. The same was approved by then Dean Research as Chairman BoRS. The matter is placed before board for ratification. The Board suggested that department shall come up with elobaratec content and evaluation etrics. After disucssing the agenda item in detail, the following resolution was atopted by the Board:

"The course CEN-800 Seminar is not ratified and the concrned Head of the Department shall provide necessary details to be placed before next BORS with expanded content and evaluation metrics in accordance with the standardard procedures".

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Agenda 17(3) : Approval of registration, supervisor, SRAC and Title of Synopsis for the following Scholar:

The synopsis of the following scholar was placed before Board for consideration.

S. No.	Name of Scholar	Registration No.	Name of Supervisor	Date of Reg.	Title of Synopsis	SRAC	
1.	Abdul Majid Sayem	IUST0119013120	Dr. Shujaat Hussain Buch	21-08-2020	Effect of Pore pressure and thermal gradient on spalling and fire resistance of concrete	1 Dr. Shahkar Ahmad Nahvi 2 Dr. Mahvash Afzal	

The Board sought the clarification from concerned Head of the Department as to why the synopsis of the is yet to be approved even though the scholar is registered from last 03 years and 08 month for the Ph.D. programme. After detailed deliberation, the following resolution was adopted:

"The synopsis of the above mentioned shoolar is not approved. Further, the Head of the Department shall submit a detailed report to the Competent Authority with regard to the delay in framing the synopsis of the scholar along with the attendance record from the date of registration".

Agenda 18(3): Approve and confirm the registration, date of reg., supervisor and SRAC of the following research scholars:

The DRC recommendation regarding confirmation of Registration, Supervisor and SRAC in respect of following

scholars was placed before Board for consideration.

S.No	Name of Scholar	Registration No.	Name of Supervisor	Name of Co-supervisor	Date of Reg.	SRAC Members
1	Tahir Mohammad Bhat	IUST0121015669	Dr. Shujaat Hussain Buch	-	25-02-2022	1 Dr. Asif Ali Banka 2 Dr. Liyakat Nazir
2	Najam Us Saqib	IUST0123017835	Dr. Shujaat Hussain Buch	-	01-11-2023	1 Dr. Asif Ali Banka 2 Dr. Liyakat Nazir

The Board observed that Scholars are yet to submit their synopses and after detailed deliberation adtopted the following resolution:

"The registration of above is not approved and will be considered for approval in the next meeting subject to submisison of the synopses"

Agenda 19(3): Change of SRAC Members for Arsalan Farooq:

The SRAC members of the scholar Arsalan Farooq were approved in the 2nd BoRS, however, both faculty members (Dr. Azhar Jameel & Dr. Asif Hussain Shah) had left the University and joined some other Institutions. The DRC meeting held on 26-02-2024 has recommended the change of SRAC members and is listed below.

S. No	Name of Candidate	Reg. No.	Name of Supervisor	SRAC Members		
1	Arsalan Farooq	IUST0119013129	Dr. Shujaat Hussain Buch	Dr. Shahkar Ahmad Nahvi Dr. Mahvash Afzal		

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The Board approved the recommendation of DRC regarding SRAC memebrs in respect of the scholar and adopted the following resolution:

"The change of SRAC members in respect of the Arsalan Farooq is approved".

Agenda 20(3) Change of Research Title of Mr. Sualiheen Ahmad Pirzada

The title and objectives of the synopsis in respect of the scholars namely Mr. Sualiheen Ahmad Pirzada Registration Number IUST0120014323 has been revised based on the resolutions adopted by the 2^{od} BORS held on 13-10-2022 and the revised Title is 'Strength and Durability of Engineered Cementitious Composites Exposed to Elevated Temperatures and Their Practical Use in Pavements'. The DRC recommendations and synopsis were placed before council for consideration.

After detailed deliberations on the Agenda item, the Board adopted the following resolution

"The synopsis of the scholar Mr. Sualiheen Ahmad Pirzada with revised title, 'Strength and Durability of Engineered Cementitious Composites Exposed to Elevated Temperatures and Their Practical Use in Pavements' is approved's.

Agenda 21(3): Approval of registration, supervisor, SRAC and Title of Synopsis for the following Scholars:

S. No.	Name of Scholar	Registration No.	Name of Supervisor	Title of synopsis	Date of Reg.
1	Mohammad Tahseen Dar	IUST0121015709	To be decided by BORS	Fire Hazard Categorization and Fire Risk Assessment For Srinagar City Using Machine Learning and Artificial Intelligence	01-08-2022
2	Zulçarnain John	IUST0121015682	To be decided by BORS	Graphene Enhanced Cementitious Composites, Investigating Structural Integrity and Performance Under Ambient and Elevated Temperature	13-07-2022
3	Sana Shabir Khan	IUST0123017713	To be decided by BORS	Synopsis to be submitted	06-10-2023
4	Sualiheen Ahmad Pirzada	IUST0120014323	To be decided by BORS	Strength and Durability of Engineered Cementinous Composites Exposed to Elevated Temperatures and Their Practical Use in Pavements	26-04-2021

The above mentioned four Scholars of the Department of Civil Engineering were being supervised by Dr. Asif Hussain Shah (Ex-Asst Professor, Dept. of Civil Engineering), however, he had resigned from IUST and joined some other Institution. The Department had held a DRC on 26-02-2024 with regard to the allocation of supervisor to these four scholars but DRC couldn't decide anything in the absence of approved supervisor in the Department as currently Department of Civil Engineering has only 01 approved Supervisor, namely Dr. Shujaat Hussain Buch who is supervising 04 (maximum) other scholars. The other faculty members of the Department don't have Ph.D degrees. Further, the Department had forwarded synopsis of the two scholars listed at S.No. 01 and 02 having mentioned the Supervisor as Dr. Asif Hussain shah.

After discussion the matter in detail, the Board adopted the following resolutions:

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"A committee under the chairmanship of Dean Research and comprising of HoD Civil Engineering & HoD Mechanical Engineering as its members will submit a detailed proposal to the Competent Authority within 03 weeks, recommending the allocation of supervisor to the above mentioned four scholars"

"The Synopses of the Scholar mentioned at S.No. 01 and 02 shall be placed before the Board in its next meeting once the new supervisor is assigned to them"

"The synopsis of the Scholar mentioned at S. No. 04 Mr. Sualiheen Ahmad Pitzada has been approved by the Board under Agenda item No. 20(3) and new supervisor will be allotted to him based on the recommendation of the above Committee.

6. DEPARTMENT OF MECHANICAL ENGINEERING

Agenda 22(3) : Extension by a period of one year in the Ph.D. programme of scholar Mr. Ummer Amin Sheikh (IUST0118012085).

Mr. Ummer Amin Sheikh was admitted in the Ph.D Programme on 17-07-2019 in the Department of Mechanical Engineering under the supervision of Dr. Azher Jameel (Ex-AP, Dept. of ME). He has completed 04 years on 16-07-2023. The Departmental Research Committee in its meeting held on 28-08-2023 has recommended one year extension in favor of the said scholar. The recommendations of the DRC were placed before Board for consideration.

After detailed deliberation, the Board adopted the following resolution:

"In concurrence with the comments of the DRC that the scholar be granted extension till June 2024, the board resolved that the scholar Mr Ummer Amin Sheikh be granted extension till June 2024 with Dr Azher Jameel as his supervisor and Dr Majid H Koul as his co-supervisor. A request for further extension, if provided under statutes, shall result in the change of supervisor from the department at IUST and Dr Azher Jameel shall act as the co-supervisor to the said scholar".

Agenda 23(3) Ratification of the Course work Syallbi

The Department of Mechancial Engineering proposed to introduce the following courses for Ph.D Scholars and same were approved the Hon'ble Vice Chancellor, the matter is palced before the Board for ratification.

S. No.	Course Code	Course Title	L	т	P	s	Hours Per Week	Crédits
1	MEC701E	Fluid Mechanics and Heat Transfer Characteristics of Nano Fluids	3	0	0	0	3	3
2	MEC702E	Hydrogen Energy Structure	3	0	0	0	3	3
3	MEC 703E	Lubricant Selection and Applications	3	0	0	0	3	3
4	MEC704E	Manufacturing of Non-Metallic Products	3	0	0	0	3	3
5	MEC705E	Sustainable Manufacturing	2	0	0	0	2	3
6	MEC706E	Friction Wear and Lubrication	4	0	0	0	4	4

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7	MEC707E	Tribo-Materials	3	0	0	0	3	3
8	MEC708E	Advanced Fluid Dynamics	3	0	0	0	3	3
9	MEC709E	Advanced Heat Transfer	3	0	0	0	3	3

The detailed syllabus of the above said courses were placed before Board for conisderation. After detailed deliberation on the agenda item in light of the suggestion from the external subject expert Prof. Babar Ahmed, the Board adopted the following resolution:

"The courses Friction, Wear and Lubrication, and Tribo-materials may be combined into a single course with revised syllabus. Additionally, all Ph.D. courses may be taught as 4-credit course since they are all advanced courses. The expert also recommended to review the course outcomes for all subjects and suggest one text book per course in addition to reference books".

Agenda 24 (3): Approve and confirm the registration, supervisor and co-supervisor of the following research scholar:

The recommendation of DRC regarding confirmation of registration, assignment of supervisor and cosupervisor in respect of following scholar was placed before Board for consideration.

S. No.	Name of Scholar	Registration No.	Date of Registration	Supervisor	Co-supervisor	
1.	Ishfaq Ahmed Ganaic	TUST0123017804	09-11-2023	Dr Mahvash Afzal	Dr Ovais Gulzar	

The Board observed that Scholar is yet to submit his synopsis and after detailed deliberations adtopted the following resolution:

"The approval of registration of scholar, supervisor/ cosupervisor will be considered for approval in the next meeting subject to the submisson of synopsis by the Scholar"

7. DEPARTMENT OF ELECTRICAL ENGINEERING

Agenda 25 (3); Approve and confirm the registration, supervisor and co-supervisor of the following research scholars:

The recommendation of DRC regarding confirmation of registration, supervisor and co-supervisor in respect of following scholar was placed before Board for consideration.

S. No	Name of Scholar	Registration No.	Date of Joining	Supervisor	Co-supervisor
1.	Rameez Rashid	IUST0123016779	01-08-2023	Dr. Ahmed Sharique Anees	Dr.Mubashar Yaqoob Zargar
2.	Suhail Ahmad Qazi	IUST0123016780	01-08-2023	Dr. Salman Ahmad	

The Board observed that Scholar is yet to submit his synopsis and after detailed deliberations adtopted the following resolution:

"The approval of registration of scholar, supervisor/ cosupervisor will be considered for approval in the next meeting subject to the submission of synopsis by the Scholars"

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Agenda 26(3): Confirmation /approval of Dr. Zahoor Ahmad Ganie, Assistant Professor as Supervisor.

The Departmental Research Committee of Electrical Engineering in its meeting held on 01-05-2023 has recommended that **Dr. Zahoor Ahmad Ganie**, Assistant Professor may be approved as Supervisor. The recommendations of DRC were placed before Board for consideration.

After going through the detailed CV of Dr. Zahoor Ahmad Ganie and subsequent to the detailed discussion, the Board adopted the following resolution:

"Dr. Zahoor Ahmad Ganie, Assistant Professor, Dept. of Electrical Engineering is approved as a Supervisor in the Department".

SUPPLEMENTARY AGENDA

1. DEPARTMENT OF ELECTRICAL ENGINEERING

Agenda S-1(3): Ratification of the Course work Syallbi.

The Departmental Research Committee of Electrical Engineering in its meeting held on 07-05-2024 has recommended that courses mentioned in the attached annexure be approved by the Board of Research Studies for the Ph.D programme in the Department of Electrical Engineering.

The detailed syllabus of these courses were placed before Board for conisderation. After detailed deliberation on the agenda item in light of the suggestion from the external subject expert Prof. Mairaj Ud Din Mufti, the Board adopted the following resoluation:

"After thoroughly examining the recently vetted Ph.D courses in the 5th Board of Studies (BOS) of the Department of Electrical Engineering, the expert was of the opinion to introduce Adaptive and Predictive Control (APR) courses in the Ph.D curriculum. The board also suggested to include "Voltage stability" topics in the course "Power System Stability-ELE606E)".

2. DEPARTMENT OF FOOD TECHNOLOGY

Agenda S-2(3): Approval of registration, supervisor, SRAC and Title of synopsis for the following Scholar:

S. No	Name of Scholar	Registration No.	Name of Supervisor	Date of Reg.	Title of Synopsis	SRAC Committee
1.	Kuaser Jan	IUST0121015693	Dr. Aamir Hussain Dar	18-07-2022	Quercetin Based Functional Packaging Material: Development and Characterization	1.Dr. Tariq Ahmad Ganaie 2.Dr. Basharat Nabi Dar

After detailed deliberation, the Board adopted the following resolution:

"The synopsis of the above scholar is approved with the change of title to either "Protein Based Functional Packaging Material by incorporating Quercetin: Development and Characterization" OR "Development of Protein Based Functional Packaging Material by incorporating Quercetin and its Characterization". However, the SRAC members shall be re-constituted by the department, incorporating other faculty members".

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3. DEPARTMENT OF MECHANICAL ENGINEERING

Agenda S-3(3): Change of Supervisor in respect of Mr. Ummer Amin Sheikh (IUST0118012085):

The DRC in its meeting held on 19-04-2024 has recommended that the Supervisor namely, Dr. Azher Jameel (Ex-Asst. Professor, DoME) in respect of the scholar namely Mr. Ummer Amin Sheikh be changed to Dr. Majid H. Koul (Assistant Professor, Dept. of Mechanical Engineering).

"Resolution already mentioned under agenda 22(3)".

The meeting ended with a vote of thanks to the Chair and to all the members by Dr. Kaiser Javeed, Dean School of Engineering & Technology.

Sd/-(Prof. Sheikh Javid Ahmed) Dean Research

Approved Sd/-Vice Chancellor

No. IUST/DR/BORS-SoET/24/1198 Dated: 28-05-2024

******** End of Minutes of 3rd BORS Meeting of SoE&T ***********

Distribution:

Subject Experts:

- Prof. Dr. M. N. Hoda, Professor & Director, BVICAM, New Delhi.
- Prof. Mohammad Shafi Mir, Professor, Department of Civil Engineering, NTT Srinagar/DAA
- Prof. Paramjit S. Panesar, Professor, Dept. of Food Engineering & Technology, SLIET, Sangrur Punjab
- Prof. Sajad Ahmad Loan, Dept. of ECE, JMI New Delhi
- Prof. Babar Ahmad, Professor, Dept. of Mechanical Engineering, NIT, Srinagar
- Prof. Mairai Ud Din Mufti, Electrical Engineering, NIT Srinagar
- Dr. Mohammad Ahsan Chishti, HOD & Associate Professor, Dept. of CSE, NIT Srinagar

Internal Members:

- Prof. A. H. Moon, Professor, Department of E&CE, IUST.
- Dr. Kaisar Javeed, I/C Dean SoE&T/Head, Department of Computer Science, IUST.
- Dr. Faroze Ahmad, Head, Department of E&CE, IUST.
- Dr. Tariq Ahamd Ganaie, Head, Department of Food Technology, IUST.
- Dr. Sajaad Ahmed Lone, Head, Department of CS&E, IUST.
- Dr. Ovais Gulzar, Head, Department of Mechanical Engineering, IUST.
- Mr. Rayes Ahmad Lone, Head, Department of Electrical Engineering, IUST (Special Invitee).
- Mr. Mir Aijaz Ahmad, Head, Department of Civil Engineering, IUST (Special Invitee).
- Dr. Rumaan Bashir, Associate Professor, Department of Computer Science, IUST.
- Dr. Javaid Iqbal Bhat, Associate Professor, Department of Computer Science, IUST.
- Dr. Shahkar Ahmad Nahvi, Assistant Professor, Department of Electrical Engineering, IUST.
- Dr. Basharat Nabi Dar, Assistant Professor, Department of Food Technology, IUST.

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- Dr. Assif Assad, Assistant Professor, Department of Computer Science Engineering, IUST.
- Dr. Muzafar Rasool Bhat, Assistant Professor, Department of Computer Science, IUST.
- Dr. Shujaat Hussain, Assistant Professor, Department of Civil Engineering
- Dr. Mahvash Afzal, Assistant Professor, Department of Mechanical Engineering, IUST
- Dr. Shakeel Ahmad Malik, Assistant Professor, Department of Electronics & Comm. Engineering, IUST
- Saqib Ul Sabha, Ph.D Scholar, Department of CS&E, scholar representative, SoE&T.

Copy to:

- Special Secretary to Vice Chancellor for kind information of Flon'ble Vice Chancellog:

P. A. to Registrar for information of Registrar.

(Prof. Sheikh Javid Ahmed)

Dean Research

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