

R&D Cell -Report

Objectives of R&D Cell

R&D Cell is committed to promote quality research among faculty members and research scholars. The Cell envisions to provide adequate infrastructure facilities and other support for collaborative research and product development. The following are the major activities envisaged by the Cell:

1. Promoting Research and Innovation culture among the faculty members and students.
2. Coordinating Research work of faculty members and research scholars
3. Promoting interdisciplinary research
4. Helping the faculty members / Departments in preparing Minor/Major Project proposals to various funding agencies.
5. Establishing a 'Project Bank' and monitoring the project proposals.
6. Coordinating periodical review meetings on the progress of research being carried out by Ph.D. scholars.
7. Coordinating systematic review of the progress of funded projects.
8. Guiding researchers in filing patents.
9. Organizing seminars/workshops for Ph.D scholars/PG students.
10. Exploring the proposals for establishing a new research centre.
11. Provide the report of the activities of the Cell or Institute.
12. Any other duties assigned by the Principal / Management.

One of the major activities of the cell is to monitor the research under KTU and other universities so that the Cell ensures that affiliated researchers are carrying out their work according to their research proposal and the research is keeping to time and budget and the work is being conducted ethically.

List of Newly Approved Research Supervisors of KTU in AY 2023-24

Four new research supervisors were approved by KTU from various departments in the academic year 2023-2024.

1. **Dr. Jyothish K John**, Computer Science & Engineering department
2. **Dr. Hema Krishnan**, Computer Science & Engineering department
3. **Dr. Reshmi R**, Computer Science & Engineering department
4. **Dr.Shahna K U**, Computer Application department
5. **Dr.Surya Susan Alex**, Department of EEE

List of Approved Research Supervisors of KTU/Supervisor activation date

There are 18 approved research supervisors from various departments. A detailed list is given below.

1. Dr. Arun kumar M N, Professor, Department of CSE (19/10/2018)
2. Dr. Anil Kumar M N, Professor, Department of ECE (19/10/2018)
3. Dr. Rejeesh C R, Associate Professor, Department of ME (25/05/2020)
4. Dr. Krishnakumar S, Professor, Department of ECE (05/10/2021)
5. Dr. Archana R, Professor, Department of EEE (05/10/2021)
6. Dr.Kavitha P E, Associate Professor, Department of CE (05/10/2021)
7. Dr. Parvathy R, Professor, Department of EEE (06/10/2021)
8. Dr. Unnikartha G, Professor, Department of CE (06/10/2021)
9. Dr. Paul P Mathai, Associate Professor, Department of CSE (19/02/2022)
10. Dr.Asha Joseph, Associate Professor, Department of CE (19/02/2022)
11. Dr. ANISH MATHEW K, Assistant Professor, Department EIE (19/02/2022)
12. Dr. Ayswarya E P, Assistant Professor, Department of Science & Humanities (19/02/2022)
13. Dr. Sujesh Lal, Assistant Professor, Department of MCA (06/08/2022)
14. Dr. Jyothish K John, Professor, Department of CSE (18/09/2023)
15. Dr. Hema Krishnan, Professor, Department of CSE (18/09/2023)
16. Dr. Reshmi R, Assistant Professor, Department of CSE (18/09/2023)
17. Dr. Shahna K U, Assistant Professor, Department of MCA (18/09/2023)
18. Dr.Surya Susan Alex, Associate Professor, Department of EEE(23/10/2023)

Research Scholars Registered for Ph.Dprogramme at FISAT Research Centre (in KTU) OR in any other University (Joint supervision-supervisors of FISAT and other Institution's supervisor)

Ph.DScholars registered in AY 2023-24

Sl. No.	Name of Scholar	University	Guide	Remarks (if Any)
1	SIMI STEPHEN	KTU	Dr.Jyothish K John	
2	NITHIN SEBASTIAN	KTU	Dr.Jyothish K John	

3	SOUMYA S RAJ	KTU	Dr.Paul P Mathai	
4	ANAND RAJAGOPAL	KTU	Guide from Muthoot Institute of Technology	
5	ARAVIND RAJAGOPAL	KTU	Guide from Muthoot Institute of Technology	
6	TONY MATHEW	KTU	Guide from Muthoot Institute of Technology	

Progress of Ph.D Scholars registered in AY 2022-23

Sl. No.	Name of Scholar	University	Remarks	Guide
1	Jency Thomas	KTU	Appeared examination of coursework subjects	Dr.Paul P Mathai (CSE Department)
2	Jisha James	KTU	Appeared examination of coursework subjects	Guide from Muthoot Institute of Technology
3	Juby Joseph	KTU	Appeared examination of coursework subjects	Guide from Muthoot Institute of Technology
4	Jyotsna E	KTU	Course work completed	Dr.Paul P Mathai (CSE Department)
5	Reshmi P R	KTU	Course work completed	Dr.Kavitha (CE Department)
6	Nikhil R	KTU	Appeared examination of coursework subjects	Dr.Asha Joseph (CE Department)

Progress of Ph.D Scholars registered in AY 2021-22

Sl. No.	Name of Scholar	University	Remarks	Guide
1	Sruthy Suresh (Odd semester registration)	KTU	Comprehensive Examination Completed	Dr.Arun Kumar M N
2	Panjami (Registered in July 2022)	IISc, Bangalore	Comprehensive Examination Completed	Dr.Arun Kumar M N (Co-Supervisor)
3	Lakshmi Raj (Odd semester registration)	KTU	Comprehensive Examination Initiated (Viva Examination Scheduled in FEB-2024)	Dr.Arun Kumar M N

4	Roshna K I (Odd semester registration)	KTU	Comprehensive Examination Initiated (Written Examination Scheduled in FEB-2024)	Dr.Arun Kumar M N
5	Raisa Vargheese (Odd semester registration)	KTU	Completed course work	Dr.Arun Kumar M N
6	Meenu Mathew (Even Semester Registration)	KTU	Completed course work	Dr.Arun Kumar M N
7	Vinitha V (Odd semester registration)	KTU	Completed course work	Dr.S Krishna Kumar
8	Sona Mary Louis (Odd semester registration)	KTU	Completed course work	Dr.Paul P Mathai
9	Preethi N P (Odd semester registration)	KTU	Completed course work	Dr.Paul P Mathai
10	Aishwarya Vijayakumar (Odd semester registration)	KTU	Appeared for 7subjects examination	Dr.Paul P Mathai
11	Treesa Sebastin (Odd semester registration)	KTU	Completed Comprehensive Examination	Dr.Archna
12	Ajith S Panackal (Odd semester registration)	KTU	Comprehensive Examination completed	Dr.Anil Kumar M N
13	Anoop Sankar (Odd semester registration)	KTU	Completed Comprehensive Examination	Guide from Muthoot Institute of Technology
14	Binol Vargheese (Odd semester registration)	KTU	Completed course work	Guide from Muthoot Institute of Technology
15	Daniel A. V (Odd semester registration)	KTU	Completed course work	Guide from Muthoot Institute of Technology

Progress of Ph.D Scholars registered before AY 2021-22

Sl. No.	Name of Scholar	University	Remarks	
1	Anitha T Nair	VTU, Karnataka	a) Completed course work. b) Published 3 research paper in international journals.	Dr.Arun Kumar M N (Co-Supervisor)

2	Pankaj Kumar G	VTU, Karnataka	a) Published 5 research papers in journals/conferences b) Completed course work.	Dr.Arun Kumar M N (Co-Supervisor)
3	Hansa J Thattil	KTU	a) Completed course work and Ph.D pre-comprehensive examination. b). Preparing a research paper and research proposal	Dr.Arun Kumar M N
4	Neena K A	KTU	a) Completed course work and Ph.D pre-comprehensive viva. Preparing a research paper and research proposal	Dr.Anil Kumar M N
5	Dhanya S	KTU	a) Completed course work and Ph.D pre-comprehensive viva. A research paper communicated to SCI Journal	Dr.Anil Kumar M N
6	Shanooja	KTU	a) Research Proposal Submitted	Dr.Anil Kumar M N

R&D Cell - Journal Papers published from FISAT

The faculty of FISAT perform commendable research and publish them in peer-reviewed international journals with high impact factor. Around 9 Research Articles have been published in Scopus-indexed journals in the last year, of which 5 articles are published in SCIE-indexed journals with an impact Factor.

More than 20 papers (All Scopus indexed) which are mostly conference papers and book chapters are also available in the public domain.

In addition to this, several other papers (un-indexed) are also published by the faculty of FISAT including our in-house journal JASETM.



Activities of R&D Cell

1. **JASETM:** Journal of Applied Science, Engineering, Technology and Management (JASETM) is a half-yearly online journal published in-house by FISAT. Honourable Chairman Shri. Shimith P. R. released the first issue of JASETM, an open-access scientific journal.



2. International Collaboration- FISAT signs MoU with UiTM Malaysia: In a significant move towards fostering global collaborations, FISAT has signed a Memorandum of Understanding (MoU) with Universiti Teknologi Mara (UiTM) Malaysia to promote friendship and cooperation, mutual understanding, academic, cultural and scientific thought and personnel exchange. This Memorandum of Understanding shall remain in effect for a period of Three (3) years. The agreement marks a milestone in the efforts of FISAT to internationalize its educational programs and research endeavours.



3. Workshop on Research Publication and Proposal Writing: A Pre-conference Workshop on Research Publication and Proposal Writing was organized by the Department of Mechanical Engineering, Federal Institute of Science and Technology in conjunction with the 3rd International Conference on Sustainable materials, Manufacturing and Renewable Technologies (iSMaRT 2023 on 23rd May 2023). More than 30 participants, mostly Faculty and Research scholars from FISAT attended this workshop, which is also the first joint activity under the FISAT Universiti Teknologi MARA (MoU) initiative. More such activities will be conducted with participants from UiTM, Malaysia.

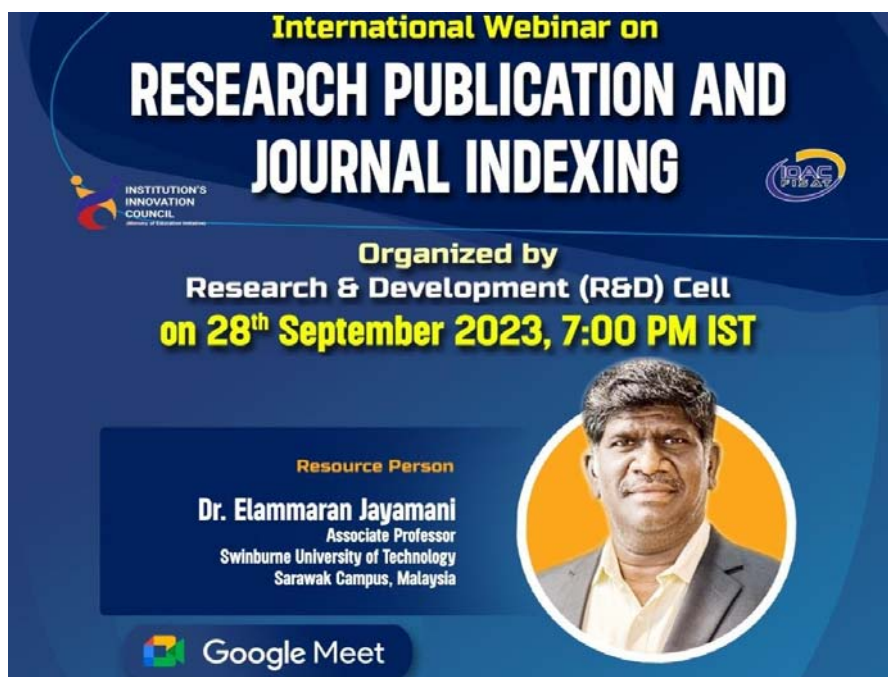


The workshop was the first of its kind where the resource persons were international faculty when the event was organised as an offline event. The following faculty members led the workshop.

Dr. David. NV,
Associate Professor
School of Mechanical Engineering,
College of Engineering,
Universiti Teknologi MARA, Malaysia

Dr. PeerawattNunthavarawong,
Assistant Professor,
Tribo Systems for Industrial Tools and Machinery Research Laboratory,
The Sirindhorn International Thai German Graduate School of Engineering,
King Mongkut's University of Technology North Bangkok, Thailand.

4. **Women Hackathon 3.0:** FISAT Technology Business Incubator (TBI) and Research & Development (R&D) cell, in collaboration with the Ministry of Micro, Small & Medium Enterprises (MSME) Gov. of India, organized the Women Hackathon 3.0 in August 2023. This event provided a platform for women-led teams to showcase their innovative ideas and an opportunity for incubation with funding. Six teams participated in the event and 4 ideas were shortlisted and recommended to MSME for funding.
5. **Webinar on Research Publication:** The Research & Development (R&D) cell at FISAT has organized a webinar on "Research Publication and Journal Indexing" on 28th September 2023. Resource person: Dr. Elammaran Jayamani, Associate Professor, Swinburne University of Technology Sarawak Campus (SUTS). Around 30 faculty members and research scholars from various departments attended the webinar.



6. **Research Grant Applications:** A startup incubated at federal labz FISAT by our faculty Ms. Raji P (Rastelx Technologies Private Ltd) has applied for a productisation grant.

IPR Cell - Intellectual Property of FISAT

The Intellectual Property Rights (IPR) Cell at FISAT is set up under the R&D Cell with an aim to foster and endorse original ideas, designs or creations by inculcating innovation and creativity among the faculty and students of the institution. FISAT has instituted a variety of schemes and policies designed to bolster and facilitate the filing and publication of patent-worthy concepts.

The IPR Cell at FISAT organises regular awareness programmes and events to familiarise the concept of intellectual property and the need for protecting it through patents and copyrights. IPR Cell extends comprehensive assistance to faculty members and students in the process of patent application/filing and publishing of patentable ideas and also continuously monitors the process until the patent gets granted. Financial support is also allocated exclusively to published patents/intellectual property, under the stipulation that the Federal Institute of Science and Technology (FISAT) is a co-applicant in the application.

In this academic year, 10 patents have been filed (10 published), 1 patent has been granted and 1 copyright has been registered.

Activities of IPR Cell

1. **Workshop on IPR studies:** IPR Cell FISAT organized a One-day workshop on “Patents and Copyright Filing Procedures in India” on 18th August 2023. Resource person: Prof. J E Moshe Dayan (Coordinator, PSNA IPR Cell, PSNA CET, Dindigul). He has extensive knowledge and

experience in the field of Intellectual Property Rights. 32 faculty members from various departments attended the workshop.



The poster is for a one-day workshop on Patents and Copyright Filing Procedures in India, organized by FISAT. It features a blue background with yellow and white text. At the top left is the FISAT logo and name. To the right are accreditation logos for NAAC, ISO, and IIT. The title 'One day workshop on PATENTS AND COPYRIGHT FILING PROCEDURES IN INDIA' is prominently displayed in the center. Below the title, it states the workshop is organized by the IPR Cell FISAT under the aegis of the R&D cell FISAT. A circular portrait of Prof. J E Moshe Dayan is shown on the left, with his name and title 'Resource Person' above it. His credentials are listed below: Coordinator PSNA IPR cell, and Assistant Professor, Electrical and Electronics Engg. Dept. PSNA CET, Dindigul, TN, India. On the right, the date and time 'on 18th August 2023 at 9:30 AM' are given, along with the logo of the Institution's Innovation Council.

FISAT | FEDERAL INSTITUTE OF SCIENCE AND TECHNOLOGY

One day workshop on
**PATENTS AND COPYRIGHT FILING
PROCEDURES IN INDIA**

Organized by IPR Cell FISAT under the aegis of R&D cell FISAT

Resource Person
Prof. J E Moshe Dayan
Coordinator PSNA IPR cell, and
Assistant Professor,
Electrical and Electronics Engg. Dept.
PSNA CET, Dindigul, TN, India

on **18th August 2023**
at **9:30 AM**