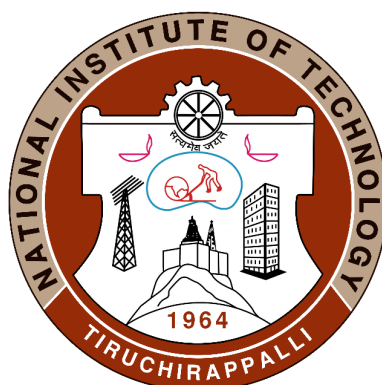# KARYASHALA

(High-End Workshop)

on

Methods and Tools for Effective Dissemination of Research Ideas and Findings

(Through Virtual Mode)

June 14 − 20, 2021

Department of Electronics and Communication Engineering

NIT TIRUCHIRAPPALLI

NIRF NATIONAL INSTITUTIONAL RANKING FRAMEWORK	**9** **(Engineering)**
THE ASIA UNIVERSITY RANKINGS	**251–300**
QS ASIAN UNIVERSITY RANKINGS	**251-260**
QS UNIVERSITY RANKINGS BRICS	**126**

The National Institute of Technology (formerly known as Regional Engineering College) Tiruchirappalli (NITT) was started as a joint and co-operative venture of the Government of India and the Government of Tamil Nadu in 1964 with a view to catering the needs of manpower in technology for the country. NITT is one of the 31 National Institutes of Technology established by the Government of India and ranks First among all the NITs in NIRF during three consecutive years. The institution offers Undergraduate Courses in ten branches and Post Graduate Courses in twenty-one disciplines of Science, Engineering & Technology besides M.S. (by Research) and Ph.D. in all the departments.
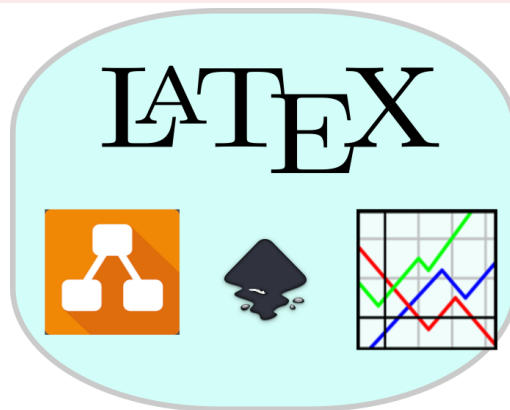
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

The Electronics and Communication Engineering (ECE) Department was established in the year 1968. The vision of the department is to provide valuable resources for industry and society through excellence in technical education and research. The Department offers Under graduate, Post Graduate, Research Degrees (M.S. & Ph.D.) programs. Research in the Department focuses on various disciplines such as Communication Systems, Wireless Networks, Signal and Image Processing, RF MEMS, Microwave Antennas, MIC, Optical Communication, Photonics and VLSI systems.

ABOUT THE COURSE

Dissemination of results is a crucial part of doing research. Only little progress can be achieved if the outcome and relevance of research one does is not properly communicated. Extremely promising results which are not properly documented will not create any impact among the readers. This way, documentation and proper communication of ideas and results is of vital importance in media such as student thesis, technical documents, project proposals, and manuscripts prepared for journals. The expert talks are centered on methods that will effectively improve the quality of writing in the participants.

MAJOR COURSE CONTENT

- Methods to become a productive academic writer.
- The definition of the writing process.
- Peer review process.
- Publication ethics.
- Reference management and bibliography generation.
- Techniques to effectively visualize the numerical results.
- Challenges in technical communication, especially for newcomers.
- Causes and remedies for manuscript rejection.

TRAINING SESSIONS

Hands-on sessions will be given to cover the following tools:

LaTeX and some important packages,

Beamer for making presentations, GNU Plot, Inkscape, Draw.io, plot digitizer, etc.

Prerequisite:

A desktop/laptop with recent Windows/Linux (Ubuntu, etc.) based OS to experiment with the tools during training sessions.

WORKSHOP SPEAKERS

Dr. Shreepad Karmalkar

Professor IIT Madras

Research Area: Semiconductor devices

Dr. Chakravarthy Balaji

Professor , IIT Madras.

Research Area: Computational Heat transfer, etc

Dr. Haridoss Prathap

Professor, IIT Madras.

Research Area: Fuel Cell & Carbon nanomaterials

Swati Meherishi

Editorial Director,

Applied Science and Engineering, Springer

Dr. Krishna Jagannathan

Associate Professor, IIT Madras.

Research Area: Stochastic modeling, Analysis of communication networks.

Dr. M. D. Selvaraj

Dean (IC&SR, CE), IIITDM , Kancheepuram.

Research Area: Wireless communication.

Dr. V. V. Mani

Associate Professor, NIT Warangal

Research Area: Wireless communication, Signal processing for Communication

Dr. Swaminathan R

Assistant Professor, IIT Indore.

Research Area: Wireless communication.

Dr. B. Kiran Naik

Assistant Professor, NIT Rourkela.

Research Area: Thermo-chemical energy conversion and storage

Dr. Sudip Biswas

Assistant Professor, IIIT Guwahati.

Research Area: 5G & Beyond Communications

Dr. Rahul Meshram

Assistant Professor, IIIT Allahabad.

Research Area: Age of Information, Internet of Things, Wireless Communication

Dr. Renjith P

Assistant Professor, IIITDM, Kurnool.

Research Area: Graph Theory and Graph Algorithms.

Dr. Srinivasan G

Institute Postdoctoral fellow, IIT Guwahati.

Research Area: Designing and testing novel drying equipment

Dr. A. Ananth

Post-Doctoral Fellow, University of Saskatchewan.

Research Area: Wireless Communication.

Dr. E. S. Gopi

Associate Professor, NIT Trichy.

Research Area: Pattern recognition and computational intelligence

Dr. G. Thavasi Raja

Assistant Professor, NIT Trichy

Research Area: Photonic Devices for Communications

Dr. Karthika V.K.

Assistant Professor, NIT Tiruchirappalli

Research Area: Second Language Acquisition, Second Language Learning Strategies, etc

Dr. J. Kirubakaran

Assistant Professor, NIT Trichy.

Research Area: Finance

Dr. P. Sudharsan

Assistant Professor, NIT Trichy.

Research Area: Stochastic geometry tools for wireless network analysis

Dr. P. Maheswaran

Assistant Professor, NIT Trichy.

Research Area: Wireless communication, Signal processing, MIMO communication.

TARGET AUDIENCE

The course is open to research scholars, postgraduate students, faculty members from universities and educational institutions, scientists and engineers from research organizations, industry.

REGISTRATION FEE

Registration fee is not charged. The course is completely sponsored by SERB Accelerate Vigyan Karyashala (High-End Workshop) program.

NUMBER OF SEATS

Maximum number of participants is limited to 70. The selected candidates will be provided with the link of the web platform a few days before the commencement of the course.

NOTE

E-certificates will be issued only to those attendees with a minimum attendance of 90% or above.

ADDRESS FOR CORRESPONDENCE

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National Institute of Technology, Tiruchirappalli

Tiruchirappalli - 620015

Tamil Nadu, India

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Jai Simha

M. Tech, Communication Systems

Department of ECE

National Institute of Technology, Tiruchirappalli

Tiruchirappalli - 620015

Email: g.jaisimha@gmail.com

CONVENER

Dr. P. Maheswaran

Assistant Professor

Department of Electronics and Communication Engineering

National Institute of Technology, Tiruchirappalli
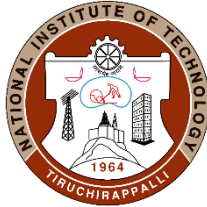
CO-CONVENER

Dr. S. S. Karthikeyan

Assistant Professor

Department of Electronics and Communication Engineering

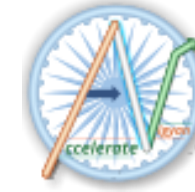**National Institute of Technology, Tiruchirappalli.**

NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPPALLI
Department of Electronics and Communication Engineering
A High-End workshop on
Methods and Tools for Effective Dissemination of Research Ideas and Findings
June 14 to June 20, 2021

	Session 1 9:30 AM to 11:00 AM		Session 2 11:30 AM to 1:00 PM		Session 3 2:00 PM to 3:00 PM		Session 4 3:15 PM to 4:15 PM
Day 1 (14-Jun-2021) Monday	**Lecture 1** Prof. Prathap Haridoss Professor, IIT Madras.		**Lecture 2** Dr. VV Mani Associate Professor, NIT Warangal.		**Lecture 3** Dr. A. Ananth Post-Doctoral Fellow, University of Saskatchewan.		**DS 1** Dr. P. Maheswaran Assistant Professor, NIT Trichy.
Day 2 (15-Jun-2021) Tuesday	**Lecture 4** Prof. Chakravarthy Balaji TT Narendran Chair Professor, IIT Madras.		**DS 2** Dr. M. D. Selvaraj Dean (SR & IC, Continuing Education) IIITDM Kancheepuram.		**DS 3** Dr. P. Maheswaran Assistant Professor, NIT Trichy.		**DS 4** Dr. Renjith P Assistant Professor, IIITDM Kurnool.
Day 3 (16-Jun-2021) Wednesday	**Lecture 5** Dr. G. Thavasi Raja Assistant Professor, NIT Trichy.	**Break**	**Lecture 6** Swati Meherishi Editorial Director-Applied Science and Engineering, Springer.	**Lunch Break**	**Lecture 7** Dr. P. Sudharsan Assistant Professor, NIT Trichy.	**Break**	**DS 5** Dr. P. Maheswaran Assistant Professor, NIT Trichy.
Day 4 (17-Jun-2021) Thursday	**Lecture 8** Prof. Shreepad Karmalkar Professor, IIT Madras.		**Lecture 9** Prof. Shreepad Karmalkar Professor, IIT Madras.		**Lecture 10** Dr. Karthika V.K. Assistant Professor, NIT Trichy.		**Lecture 11** Dr. Karthika V.K. Assistant Professor, NIT Trichy.
Day 5 (18-Jun-2021) Friday	**Lecture 12** Dr. J. Kirubakaran Assistant Professor, NIT Trichy.		**Lecture 13** Dr. Krishna Jagannathan Associate Professor, IIT Madras.		**Lecture 14** Dr. Rahul Meshram Assistant Professor, IIIT Allahabad.		**DS 6** Dr. P. Maheswaran Assistant Professor, NIT Trichy.
Day 6 (19-Jun-2021) Saturday	**Lecture 15** Dr. Sudip Biswas Assistant Professor, IIIT Guwahati.		**Lecture 16** Dr. Swaminathan R Assistant Professor, IIT Indore.		**DS 7** Dr. P. Maheswaran Assistant Professor, NIT Trichy.		**DS 8** Dr. P. Maheswaran Assistant Professor, NIT Trichy.
Day 7 (20-Jun-2021) Sunday	**Lecture 17** Dr. E. S. Gopi Associate Professor, NIT Trichy.		**Lecture 18** Dr. B. Kiran Naik Assistant Professor, NIT Rourkela.		**Lecture 19** Dr. Srinivasan G Institute Postdoctoral Fellow, IIT Guwahati.		**DS 9** Dr. P. Maheswaran Assistant Professor, NIT Trichy.

DS – Demo Session

Inauguration

14-June-2021, 9:00 AM to 9:30 AM

Welcome Address

Dr. P. Maheswaran

Assistant Professor, Department of ECE

NIT Trichy.

Inaugural Address

Prof. P. Muthuchidambaranathan

HoD, Department of ECE

NIT Trichy.

Address by the Chief Guest

Prof. Haridoss Prathap

Professor

Department of Metallurgical and Materials Engineering, IIT Madras.

Vote of Thanks

Dr. S. S. Karthikeyan

Assistant Professor, Department of ECE

NIT Trichy.

DAY 1 (14-Jun-2021)

9:30 AM

Lecture 1

Topic: Challenges in technical communication, especially for newcomers

Speaker: Prof. Prathap Haridoss

Professor, IIT Madras.

11:30 AM

Lecture 2

Topic: Scientific dissemination and publication

Speaker: Dr. VV Mani

Associate Professor, NIT Warangal.

2:00 PM

Lecture 3

Topic: Writing introduction and methodology in manuscripts
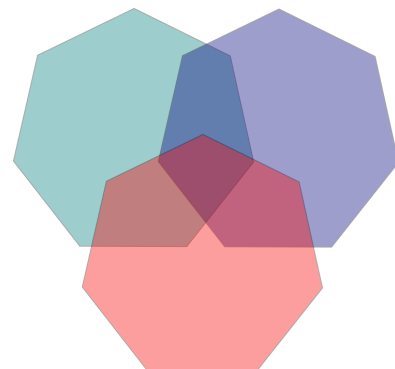
Speaker: Dr. A. Ananth

Post-Doctoral Fellow, University of Saskatchewan

3:15 PM

Demo Session 1

Topic: Plot digitizers for data extraction

Speaker: Dr. P. Maheswaran

Assistant Professor, NIT Trichy.

DAY 2 (15-Jun-2021)

9:30 AM

Lecture 4
Topic: Why is my paper not getting accepted?
Speaker: Prof. Chakravarthy Balaji
TT Narendran Chair Professor,
IIT Madras.

11:30 AM

Demo Session 2
Topic: How to use a LaTeX tool for writing papers and making presentations?
Speaker: Dr. M. D. Selvaraj
Dean (SR & IC, CE) IIITDM Kancheepuram.

2:00 PM

Demo Session 3
Topic: Dealing with page layouts and technical texts in LaTeX
Speaker: Dr. P. Maheswaran
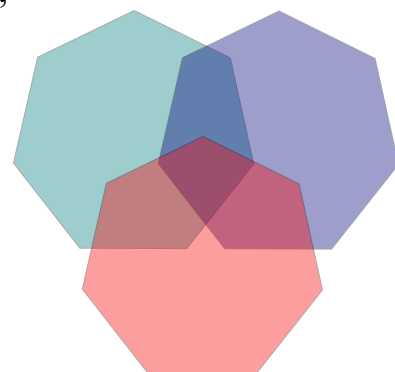Assistant Professor, NIT Trichy. .

3:15 PM

Demo Session 4
Topic: Creating graphic elements in LaTeX using TikZ
Speaker: Dr. Renjith P
Assistant Professor,
IIITDM Kurnool.

DAY 3 (16-Jun-2021)

9:30 AM

Lecture 5

Topic: How to write a good research paper for top international journal

Speaker: Dr. G. Thavasi Raja

Assistant Professor, NIT Trichy.

11:30 AM

Lecture 6

Topic: Publishing scientific research

Speaker: Swati Meherishi

Editorial Director-Applied Science and Engineering, Springer.

2:00 PM

Lecture 7

Topic: Ethics in research

Speaker: Dr. P. Sudharsan

Assistant Professor, NIT Trichy.
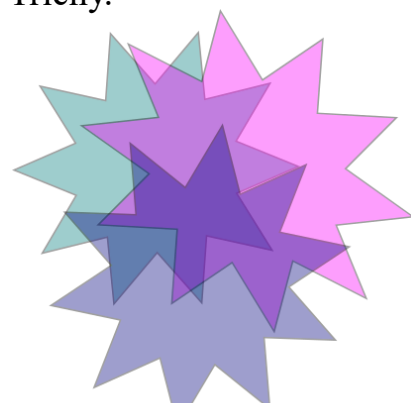
3:15 PM

Demo Session 5

Topic: Managing table of content and bibliography in LaTeX and Beamer

Speaker: Dr. P. Maheswaran

Assistant Professor, NIT Trichy.

DAY 4 (17-Jun-2021)

9:30 AM

Lecture 8
Topic: Role of communication skills in research
Speaker: Prof. Shreepad Karmalkar
Professor, IIT Madras.

11:30 AM

Lecture 9
Topic: A recipe for developing communication skills
Speaker: Prof. Shreepad Karmalkar
Professor, IIT Madras.

2:00 PM

Lecture 10
Topic: Nuances of writing a scientific abstract
Speaker: Dr. Karthika V.K.
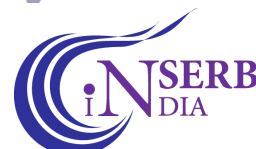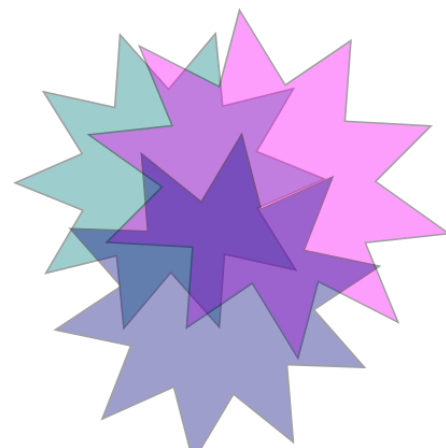Assistant Professor, NIT Trichy.

3:15 PM

Lecture 11
Topic: Nuances of writing a scientific abstract (cont.)
Speaker: Dr. Karthika V.K.
Assistant Professor, NIT Trichy.

DAY 5 (18-Jun-2021)

9:30 AM

Lecture 12
Topic: Measurements and scaling techniques
Speaker: Dr. J. Kirubakaran
Assistant Professor, NIT Trichy.

11:30 AM

Lecture 13
Topic: Making an effective technical presentation
Speaker: Dr. Krishna Jagannathan
Associate Professor, IIT Madras

2:00 PM

Lecture 14
Topic: Research methods and basics of technical writing
Speaker: Dr. Rahul Meshram
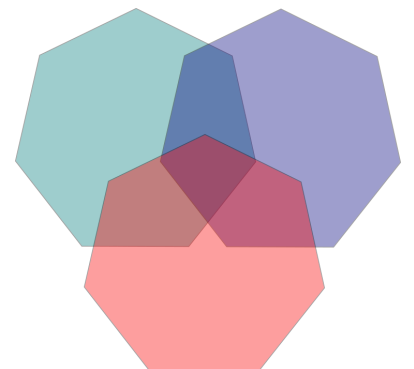Assistant Professor, IIIT Allahabad.

3:15 PM

Demo Session 6
Topic: How to include tables, figures, and algorithms in LaTeX?
Speaker: Dr. P. Maheswaran
Assistant Professor, NIT Trichy.

DAY 6 (19-Jun-2021)

9:30 AM

Lecture 15
Topic: Responding to reviewers: My stories
Speaker: Dr. Sudip Biswas
Assistant Professor, IIIT Guwahati.

11:30 AM

Lecture 16
Topic: My experiences on writing technical papers and
research proposals, responding to reviewers' concerns, and making presentations.
Speaker: Dr. Swaminathan R
Assistant Professor, IIT Indore.

2:00 PM

Demo Session 7
Topic: Introduction to gnuplot
Speaker: Dr. P. Maheswaran
Assistant Professor, NIT Trichy.

3:15 PM

Demo Session 8
Topic: More on gnuplot
Speaker: Dr. P. Maheswaran
Assistant Professor, NIT Trichy.

DAY 7 (20-Jun-2021)

9:30 AM

Lecture 17
Topic: Tips on technical writing
Speaker: Dr. E. S. Gopi
Associate Professor, NIT Trichy.

11:30 AM

Lecture 18
Topic: Research Excellence – Not Beyond your Reach
Speaker: Dr. B. Kiran Naik
Assistant Professor, NIT Rourkela.

2:00 PM

Lecture 19
Topic: Literature review: Approach and structuring
Speaker: Dr. Srinivasan G
Institute Postdoctoral Fellow, IIT Guwahati.

3:15 PM

Demo Session 9
Topic: Introduction to vector graphics, Inkscape, and Draw.io
Speaker: Dr. P. Maheswaran
Assistant Professor, NIT Trichy.