

Resource Persons:



Dr. D. Sriram Kumar,
Professor, Dept. of ECE,
NIT Trichy

Dr. Vineeth Palliyemil,
Assistant Professor,
Dept. of ECE,
IIIT kottayam



Dr. K. Prabu,
Associate Professor,
Dept. of ECE,
NIT Karnataka

Dr. G. Athisha,
Professor & Head,
Dept. of ECE,
PSNACET, Dindigul



Mrs. S. Bala Meenakshi,
Managing Partner
Balsu's Success Academy,
Madurai

Dr. G.Indumathi,
Senior Professor,
Dept. of ECE,
MSEC, Sivakasi



Mr. M. Rajalingam
Engineer
Kodaikanal Solar
Observatory

Dr. Balaji Dhayabaran,
Senior Member of
Technical Saankhya
Labs Pvt. Ltd, Bangalore

Dr.R.Sandanalakshmi,
Associate Professor,
Dept. of ECE,
PEC, Pondicherry

Dr. Lingasamy
Veluchamy,
Manager of R&D
Rakuten Mobile Inc,
Bangalore



CHIEF PATRON

Dr. D. Senthil Kumaran,
Principal, SSMIET, Dindigul

COORDINATOR

Dr. S. Karthigai Lakshmi,
Professor & Head ECE, SSMIET,
Dindigul

CO-COORDINATOR

Mrs. S.Keerthana,
Assistant Professor, ECE, SSMIET,
Dindigul

ORGANIZING COMMITTEE

Dr. M. Manikandan, AP/ECE,
Dr. R. Carol Praveen, AP/ECE,
Dr. K. Ganapriya, AP/ECE,
Mrs. A. Geetha, AP/ECE,
Mr. V. P. Jay Fantin, AP/ECE,
Mr. R. Senthil Kumar, AP/ECE.

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Mrs. G. Rajarajeshwari, AP/ECE
Mrs. K. Moniga, AP/ECE
Mrs. R. Sudha, AP/ECE

Mrs. A. Arockia Helen Sushma, AP/ECE
Mrs. E. Thanga Deepika, AP/ECE

FDP Venue: SSMIET, Dindigul

IMPORTANT DATES

Last date of receipt of application:
29th November 2024.

Notification about selection: By email

A Six-Day AICTE Training and Learning (ATAL) Academy Sponsored Faculty Development Program (FDP) on Advancing Green Communication: Research Perspectives in Sustainable Optical Wireless Technology

(09th – 14th December, 2024)



ORGANIZED BY



Department of Electronics and Communication
Engineering

SSM Institute of Engineering and Technology (SSMIET)

Dindigul – Palani Highway, Dindigul-624002.

(An Autonomous Institution affiliated to Anna University,
Chennai)

<https://ssmiet.ac.in/>

ABOUT THE INSTITUTE:

Sri Shanmugavel Mills (SSM), a renowned name in Dindigul's textile industry, established SSM Institute of Engineering and Technology (SSMIET) in 2011 to offer world-class engineering education. Dedicated to academic excellence, SSMIET nurtures students with technical, entrepreneurial, and ethical skills to meet global challenges. Accredited by AICTE, NAAC, and NBA for select programs (ECE, MECH, EEE). The institute is committed to quality education and transforming students into competent professionals.

ABOUT THE DEPARTMENT:

Established in 2011, our ECE department has become a hub of excellence offering quality education with an B.E ECE and M.E. in Communication Systems approved by AICTE, NBA and affiliated with Anna University. Supported by dedicated faculty and skilled technical staff, we provide a holistic learning experience. The department conducts workshops, training and conferences on emerging trends in photonics and related technologies fostering innovation and growth in Electronics and Communication Engineering.

Registration Steps:

1. Sign up at <https://atalacademy.aicte-india.org/>.
2. Complete your profile and upload your ID card & NOC (PDF).
3. Go to FDPs, select "ATAL" as FDP type, "December" for the month, and "Technical" as FDP type.
4. Locate "Advancing Green Communication: Research Perspectives in Sustainable Optical Wireless Technology" (Application No: 1715676613) and click the "+" to apply.
5. Check confirmation under "Applied FDPs" section.

Objective:

The key objective is to

- Equip participants with knowledge and practical skills in sustainable optical wireless communication.
- Promote energy-efficient, eco-friendly technologies aligned with sustainability goals.
- Provide hands-on training using advanced tools and simulation software for OWC system design and optimization.
- Foster industry-academia collaboration through expert interactions and industrial visits.

Course Contents:

The followings are the course contents for this FDP:

Module 1: Spectrum Scarcity Issues and Optical Wireless Communications as a Solution, Standards and recommendations on optical wireless communications.

Theory of Free-Space Optical (FSO) Communication
Signal Propagation Through Atmospheric Channel.
Hands-on Training of Simulation of Free Space Optics communication link design under varying distances.

Module 2: Optical Networks: Integration of FSO, Study the effects of optical wireless links under atmospheric turbulence.

Module 3: Diversity Techniques- MIMO Technology for Optical Wireless Communications using LED Arrays and Fly-Eye Receivers), Indoor Positioning Methods Using VLC LEDs. Hands-on Demonstration of channel capacity and BER performance of a MIMO system using optical wireless communication

Module 4: Optical reconfigurable intelligent surface aided communications, Optical wireless communication for space-air-ground integrated network, Simulation of Indoor VLC using communicating LED's.

Module 5: Visible Light Communication for Next Generation Communications, Energy transfer, harvesting and saving in optical wireless systems.

Module 6: Research challenges of FSO systems: IoT/loE,6G, mobile, THz spectrum and quantum communication.

Resource Persons:

Faculty members from IITs/NITs/Central Universities/Industry.

Target Audience:

Faculty members, research scholars and PG scholars from AICTE-approved or other technical institutions as well as industry professionals.

Participant Details:

There is no registration fee. Certificates will be issued upon satisfying minimum 80% attendance and minimum 70% marks in assessment and other research activities. The program is limited to 50 participants on a first-come, first-served basis.

Field Visits:

The FDP will feature field visits to significant research facilities focused on optical communication technologies, providing participants with valuable insights into real-world applications.

Contact us:

Email id: ssmeceatalfdp@gmail.com

Contact Number

Coordinator : 9965263782

Co-Coordinator : 9487391919



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Faculty Development Program (FDP) on

**Advancing Green Communication: Research Perspectives in Sustainable
Optical Wireless Technology**

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DECLARATION

I declare that all the details furnished in my application are true to the best of my knowledge and I agree to abide by the rules and regulations governing the conduct of FDP under ATAL Academy.

Date:

Place:

Signature of the Participant

AUTHORIZATION CERTIFICATE

This is to certify that _____, working as _____ in the department of _____ is a regular employee of our institution and is hereby permitted to attend the ATAL FDP on “**Advancing Green Communication: Research Perspectives in Sustainable Optical Wireless Technology**” from 09.12.2024 to 14.12.2024, at Department of Electronics Engineering, SSM Institute of Engineering and Technology, Dindigul – 624 002.

Date:

Place:

Signature of the competent Authority with seal