

# THE LNM INSTITUTE OF INFORMATION TECHNOLOGY, JAIPUR

(Deemed-to-be-University under De-Novo category and Section 3 of UGC Act 1956)

## Event Report Format

724

S. No.	Particulars	Response																		
1	Name of the Event/ Activity	Distinguished talk on "Next-Generation Wireless Sensing for Non-intrusive Autonomous Environment Monitoring"																		
2	Program Type (FDP/ EDP/ UHV-FDP/ Conference/ Workshop/ Webinar/ Seminar/ Invited Talk/ Distinguished Lecture/ Induction Program/ Orientation Program/ Hackathon/ GIAN Course/ Sort-Term Course/ Training Session/ Cultural Activity/ Quiz Contest/ Debate/ Competition/ Sports Event/ Social Service Activity/ Awareness Program/ Charity Program/ Swachhta Program/ Healthcare Activity/ Others)	Technical Talk																		
3	Theme of the Event (Technology/ Innovation/ Research Methodology/ IPR/ Start-up/ Entrepreneurship/ Skill Development/ Stress Management/ Motivation/ Gender Sensitization/ Women Empowerment/ Career Development/ Leadership/ Awareness Program/ Social Service/ Mentoring/ Road Show/ Exhibition/ Fun Activity/ Games/ Cultural Activity/ Disaster Management/ Environmental Awareness/ Others)	Technology																		
4	Program Level (National/ International/ Departmental/ Institutional/ District/ State)	International																		
5	Program Category (Institute Lead Activity/ Student Lead Activity)	Institute Lead Activity																		
6	Event Organized for? (Faculty/ Staff/ Students/ Industry Persons/ External Participants/ Open for All)	Faculty/Students																		
7	Program Starting Date (dd/mm/yyyy)	24/01/2024																		
8	Program Ending Date (dd/mm/yyyy)	24/01/2024																		
9	Program Duration (in hours)	8 hrs (spanning in two halves)																		
10	Event Organized by (Name of Department/ Centre/ Club/ Society/ Group)	Centre for Next Generation Communication and Networking																		
11	Name and Contact details of Coordinator(s)	Dr. Anirudh Agarwal (9460478956)																		
12	Details of External Partner(s) or Sponsoring Body/ Organization, if any?	NA																		
13	Mode of Conduction (Online/ Offline/ Hybrid)	Physical																		
14	Venue of the Event	LT-05																		
15	Details of Participants (Please attach hard copy of the list of participants)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>No. of Internal Students</td> <td style="text-align: center;">56</td> </tr> <tr> <td>No. of Internal Faculty</td> <td style="text-align: center;">5</td> </tr> <tr> <td>No. of Internal Staff</td> <td style="text-align: center;">0</td> </tr> <tr> <td>No. of External Students</td> <td style="text-align: center;">1</td> </tr> <tr> <td>No. of External Faculty</td> <td style="text-align: center;">0</td> </tr> <tr> <td>No. of External Staff</td> <td style="text-align: center;">0</td> </tr> <tr> <td>No. of Industry Persons</td> <td style="text-align: center;">0</td> </tr> <tr> <td>No. of International Participants</td> <td style="text-align: center;">0</td> </tr> <tr> <td><b>Total Participants</b></td> <td style="text-align: center;"><b>62</b></td> </tr> </tbody> </table>	No. of Internal Students	56	No. of Internal Faculty	5	No. of Internal Staff	0	No. of External Students	1	No. of External Faculty	0	No. of External Staff	0	No. of Industry Persons	0	No. of International Participants	0	<b>Total Participants</b>	<b>62</b>
No. of Internal Students	56																			
No. of Internal Faculty	5																			
No. of Internal Staff	0																			
No. of External Students	1																			
No. of External Faculty	0																			
No. of External Staff	0																			
No. of Industry Persons	0																			
No. of International Participants	0																			
<b>Total Participants</b>	<b>62</b>																			

[Signature]

16	Details of Invited Speakers/ Experts/ Industry Persons/ Guests (Name, Designation, Organization/ Industry Name)	<b><u>See the Attached Flyer</u></b>								
17	Funding details	<table border="1"> <tr> <td>Expenses from the Institute Fund</td> <td><b><u>INR 15,721/-</u></b></td> </tr> <tr> <td>Grant received from Sponsoring or Partnering Body/ Organization</td> <td><b><u>0</u></b></td> </tr> <tr> <td>Grant received from Govt. Bodies</td> <td><b><u>0</u></b></td> </tr> <tr> <td><b>Total Expenditure</b></td> <td><b><u>INR 15,721/-</u></b></td> </tr> </table>	Expenses from the Institute Fund	<b><u>INR 15,721/-</u></b>	Grant received from Sponsoring or Partnering Body/ Organization	<b><u>0</u></b>	Grant received from Govt. Bodies	<b><u>0</u></b>	<b>Total Expenditure</b>	<b><u>INR 15,721/-</u></b>
Expenses from the Institute Fund	<b><u>INR 15,721/-</u></b>									
Grant received from Sponsoring or Partnering Body/ Organization	<b><u>0</u></b>									
Grant received from Govt. Bodies	<b><u>0</u></b>									
<b>Total Expenditure</b>	<b><u>INR 15,721/-</u></b>									
18	Details of the Winners along with Prize details? If any.	<b>NA</b>								
19	Brief note about the event	The Centre for Next Generation Communication and Networking at LNMIIT organized a distinguished talk on "Next-Generation Wireless Sensing for Non-intrusive Autonomous Environment Monitoring", along with an interactive students' session on Jan 24, 2024, in physical mode. The workshop was truly a grand success. The major focus of this talk was on next-generation wireless sensing-based ICT, highlighting opportunities and challenges and discussing how backscattering capability can enable autonomous and sustainable sensing.								
20	Program Outcome? If any	Knowledge Enhancement of Participants in the area of WiFi Sensing								
21	Google Drive Link of Geotagged and Simple Photographs (Please upload photographs on your google drive and share the link here with editing rights)	<b><u><a href="https://bit.ly/4bsVsvd">https://bit.ly/4bsVsvd</a></u></b>								


**Supporting Documents to be attached with the report:**

1. Copy of participation certificates if issued to the participants: **NA**
2. Copy of Poster/ Flier/ Brochure of the activity: **Attached**
3. Copy of the email/notice circulated: **Attached**
4. List of the participants (Faculty/ Staff/ Students/ External Participants etc.): **Attached**
5. List of the Winners, if any: **NA**
6. Copy of Agreement/ MoU in case of collaborative activity: **NA**
7. At least 5 Geotagged Photographs: Not Available
8. At least 5 Simple Photographs: **Provided in Google Drive Link**

**Important Notes:**

1. Soft copy along with all the applicable documents must be sent to [events@lnmiit.ac.in](mailto:events@lnmiit.ac.in)
2. Signed Hard copy along with all the applicable documents must be submitted in IDAAR Cell.

Date of report submission: 29-01-2024

  
 Dr. ANIRUDH AGARWAL  
 Name and Signature of the Coordinator(s)



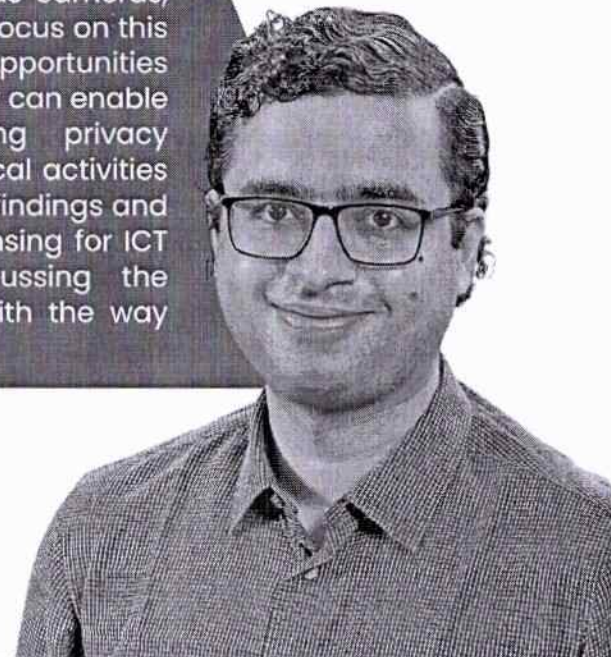
DISTINGUISHED TALK ON

## NEXT-GENERATION WIRELESS SENSING FOR NON-INTRUSIVE AUTONOMOUS ENVIRONMENT MONITORING

The Centre for Next Generation Communication and Networking (CNGCN), LNMIIT Jaipur, in association with IEEE Vehicular Technology Society, cordially invites you to attend a distinguished talk by Dr. Deepak Mishra, School of Electrical Engineering and Telecommunications, University of New South Wales, Sydney, Australia.

### ABSTRACT OF THE TALK

WiFi as a wireless sensing medium is the non-intrusive nature of this framework compared to other sensing technologies, such as cameras, wearable tags, and smartphone apps. This research talk will focus on this next-generation wireless sensing-based ICT, highlighting opportunities and challenges and discussing how backscattering capability can enable autonomous and sustainable sensing. The underlying privacy implications and some defense strategies to safeguard critical activities will also be discussed. The objective is to disseminate recent findings and our experimentally validated research outcomes on WiFi sensing for ICT and environmental monitoring applications while discussing the robustness, resilience, and autonomous attributes along with the way forward for this AI-enabled wireless sensing technology.



SPEAKER:

### DR. DEEPAK MISHRA

School of Electrical Engineering and Telecommunications  
University of New South Wales, Sydney, Australia

### ABOUT SPEAKER

Deepak Mishra is a Senior Lecturer at the School of EE&T, UNSW, Sydney, Australia. He received his PhD degree in EE from IIT Delhi in 2017. Before joining UNSW, he worked as a Post-Doc Fellow at Linköping University, in Sweden from August 2017 to July 2019. He has also held Visiting Researcher positions at Northeastern University and the University of Rochester in the USA, Huawei Technologies in France, and Southwest Jiaotong University in China. He has received some prestigious research awards, including the IBM PhD. Fellowship Award in 2016, Raman Charpak Fellowship Award in 2017, Endeavour Research Fellowship Award in 2018, and the Australian Research Council (ARC) Discovery Early Career Researcher Award (DECRA) in 2022.

Deepak's research focus includes AI-enabled wireless sensing, energy harvesting cooperative communication networks, massive MIMO, physical layer security, and other allied areas of wireless communication. He is an Associate Editor of IEEE TGCN, IEEE WCL, IEEE Access and others. He was named a Best Editor for IEEE WCL in 2023 and was selected as an Exemplary Reviewer of IEEE TWC, IEEE WCL and IEEE TCOM during 2017-2020.



**WEDNESDAY**  
Jan 24, 2023



10:00 AM-  
11:00 AM

LT-05

Join Us



<https://meet.google.com/fpf-kocz-zca>

---

## CNGCN: Invitation to Distinguished Talk by Dr. Deepak Mishra (UNSW, Australia)

---

Dr. Anirudh Agarwal <anirudh.agarwal@lnmiit.ac.in>  
To: Dean Office <deanoffice@lnmiit.ac.in>

Thu, Jan 18, 2024 at 4:03 PM

Dear All,

With immense pleasure, I invite you to attend a groundbreaking talk on "Next-Generation Wireless Sensing for Non-intrusive Autonomous Environment Monitoring" being organized by the Centre for Next Generation Communication and Networking.

The speaker of the event is a globally recognized personality, Dr. Deepak Mishra, who is a Senior Lecturer in the School of Electrical Engg. & Telecommunication, UNSW Sydney, Australia.

The details of the event are as follows:-  
Date: **24th January, 2024** (Wednesday)  
Time: **10:00-11:00 AM**  
Venue: **LT-05**

Dr. Deepak will also discuss various possible entrepreneurial and student/ faculty-exchange opportunities.

Those who are unable to attend physically, may kindly attend via Google Meet (<https://meet.google.com/fpf-kocz-zca>).


The abstract of the talk along with the Speaker's details are provided in the attached flyer for your reference.

Thanks and regards,  
Anirudh.

@Dean Office: Kindly forward this email to faculty and PhD student groups.

**Anirudh Agarwal, PhD, MIEEE**  
Assistant Professor, Dept. of ECE,  
Assistant Dean of Students' Affairs,  
The LNM Institute of Information Technology, Jaipur, India  
Ph: 0141-3526321 (O), Office Extn: 6321  
Website: <https://sites.google.com/view/anirudh-agarwal>

---

 **Flyer\_Talk by Dr Deepak Mishra.pdf**  
3004K



Name of the Participant	Institute/ University/ Industry	Designation	Signature
Justin Jose	IIT INDORE	Ph.D. Scholar	S/d
PAYAL MITTAL	LNMIIT,Jaipur	Ph.D. Scholar	S/d
Bhupendra Sharma	LNMIIT,Jaipur	Ph.D. Scholar	S/d
Sameeksha Chaudhary	LNMIIT,Jaipur	Ph.D scholar	S/d
Sneha Dattatreya	LNMIIT,Jaipur	Ph.D scholar	S/d
Manoj Sain	LNMIIT,Jaipur	Ph.D. Scholar	S/d
Sonam Barjatiya	LNMIIT,Jaipur	Ph.D. Scholar	S/d
ABHINAV SHARMA	LNMIIT,Jaipur	UG Student	S/d
ABIR SAMANTA	LNMIIT,Jaipur	UG Student	S/d
ADITI BAJAJ	LNMIIT,Jaipur	UG Student	S/d
ADITYA BHANDARI	LNMIIT,Jaipur	UG Student	S/d
ADITYA JAIN	LNMIIT,Jaipur	UG Student	S/d
AISHWARYA SANGHI	LNMIIT,Jaipur	UG Student	S/d
AKSHAT MANAS	LNMIIT,Jaipur	UG Student	S/d
AKSHAT SUDHANSHU	LNMIIT,Jaipur	UG Student	S/d
ALABH SHRIVASTAVA	LNMIIT,Jaipur	UG Student	S/d
AMAN AGGARWAL	LNMIIT,Jaipur	UG Student	S/d
AMAN CHORDIA	LNMIIT,Jaipur	UG Student	S/d
AMOGH JAIN	LNMIIT,Jaipur	UG Student	S/d
AMOGH SINGH	LNMIIT,Jaipur	UG Student	S/d
ANISH MANOJ PANDE	LNMIIT,Jaipur	UG Student	S/d
ANMOL JAIN	LNMIIT,Jaipur	UG Student	S/d
ANSH GOEL	LNMIIT,Jaipur	UG Student	S/d
ANSHUL SINGH	LNMIIT,Jaipur	UG Student	S/d
ANURAG SHARMA	LNMIIT,Jaipur	UG Student	S/d
ANWOY DATTA	LNMIIT,Jaipur	UG Student	S/d
ARJUN LONDHE	LNMIIT,Jaipur	UG Student	S/d
ARNAB HARSH	LNMIIT,Jaipur	UG Student	S/d
ARNAV JAIN	LNMIIT,Jaipur	UG Student	S/d
ARYA SINGH	LNMIIT,Jaipur	UG Student	S/d
AYUSH AGRAWAL	LNMIIT,Jaipur	UG Student	S/d
BAL NARAYAN SINGH	LNMIIT,Jaipur	UG Student	S/d
CHETAN SHARMA	LNMIIT,Jaipur	UG Student	S/d
CHINMAY BANAWADI	LNMIIT,Jaipur	UG Student	S/d
DARSH FATWANI	LNMIIT,Jaipur	UG Student	S/d
DARSHAN DUGAR	LNMIIT,Jaipur	UG Student	S/d
DEV GUPTA	LNMIIT,Jaipur	UG Student	S/d
DEV KHUBANI	LNMIIT,Jaipur	UG Student	S/d
EKAGRA SHANDILYA	LNMIIT,Jaipur	UG Student	S/d
GUNEET GARG	LNMIIT,Jaipur	UG Student	S/d
HARDIK AGRAWAL	LNMIIT,Jaipur	UG Student	S/d
HARSH AGRAWAL	LNMIIT,Jaipur	UG Student	S/d
HARSH CHANDGOTIA	LNMIIT,Jaipur	UG Student	S/d
HARSH PARMAR	LNMIIT,Jaipur	UG Student	S/d
HARSH TAILOR	LNMIIT,Jaipur	UG Student	S/d
HARSHIL VIJAY	LNMIIT,Jaipur	UG Student	S/d
HARSHITA SHARMA	LNMIIT,Jaipur	UG Student	S/d
HIYA JAIN	LNMIIT,Jaipur	UG Student	S/d
JAYESH CHAUDHARY	LNMIIT,Jaipur	UG Student	S/d

27/9

KESHAV LADDHA	LNMIIT,Jaipur	UG Student	S/d
KESHAV MITTAL	LNMIIT,Jaipur	UG Student	S/d
KHUSHI AGRAWAL	LNMIIT,Jaipur	UG Student	S/d
KHUSHI SHARMA	LNMIIT,Jaipur	UG Student	S/d
KHUSHI SHARMA	LNMIIT,Jaipur	UG Student	S/d
KRISH V SHAH	LNMIIT,Jaipur	UG Student	S/d
KRISHNA PAREEK	LNMIIT,Jaipur	UG Student	S/d
KRISHNA THAWANI	LNMIIT,Jaipur	UG Student	S/d
Ritesh Bhardwaj	LNMIIT,Jaipur	Assistant Professor	S/d
Saurabh Kumar	LNMIIT,Jaipur	Assistant Professor	S/d
Anirudh Agarwal	LNMIIT,Jaipur	Assistant Professor	S/d
Ranjan Gangopadhyay	LNMIIT,Jaipur	Research Professor	S/d
Santosh Shah	LNMIIT,Jaipur	Assistant Professor	S/d

*Agarwal*  
*29/01/24*

(Dr. Anirudh Agarwal)  
Coordinator

UNSW  
LIBRARY

DIVISION SYSTEMS

# Next-Generation Wireless Sensing for Non-intrusive Autonomous Environment Monitoring

Presented by

Deepak Mishra

Senior Lecturer  
School of Electrical Engineering  
University of New South Wales (UNSW)  
Email: d.mishra@unsw.edu.au

UNSW

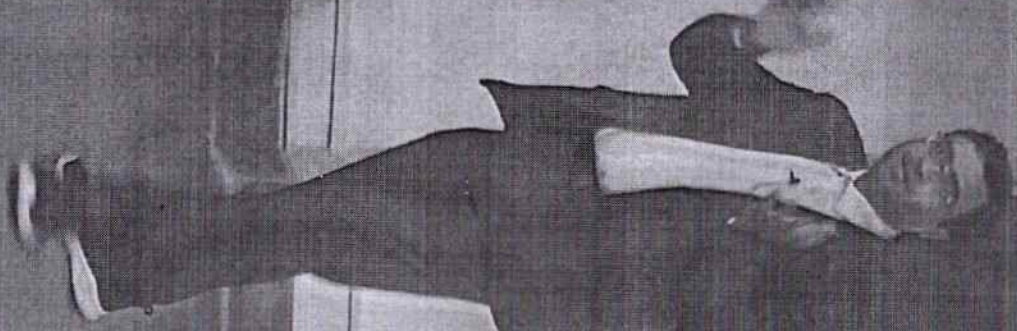


RTH










### Next-Generation Communication Networks

A Summary of the Next-Generation Communication Networks (NGN) project, which is a joint effort of the Department of Information Systems and the Department of Electrical and Electronic Engineering at the University of Hong Kong.



The NGN project is a joint effort of the Department of Information Systems and the Department of Electrical and Electronic Engineering at the University of Hong Kong. The project is a joint effort of the Department of Information Systems and the Department of Electrical and Electronic Engineering at the University of Hong Kong.

10  
9  
8  
7  
6  
5  
4  
3  
2  
1



~~Handwritten signature or mark~~