

# DEEPENING OF SCIENTIFIC RESEARCH ON 5G USE CASES FOR SOLVING CHALLENGES OF SOCIETY

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## Lab Activities at 5G Lab Manipur

Yairipok High School students, teachers, and staff visited the 5G Lab for an exposure tour. A comprehensive demonstration was conducted, showcasing the lab's 5G use cases, tools, and equipment, including functional 5G smartphones with live network testing, NIAB for portable 5G simulations, IoT Environmental Kits, and a 5G Drone for aerial connectivity demos. The session emphasized real-world applications of 5G in education, agriculture, and smart infrastructure, generating significant engagement from the visitors.



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## Lab Activities at 5G Lab Manipur

A meeting was held with Laishram Jimmy, the Incubation Center In-charge at Manipur Technical University, to discuss the MIT 5G Lab's capabilities and potential collaborations with their startups and students. He confirmed plans for a future visit with their students.



A visit to the Directorate of University & Higher Education included a productive discussion with Additional Director P. Shanti Kumar Singh regarding the potential for student engagement and 5G use case exploration at the MIT 5G Lab. The visit was well-received, with future engagements expected from colleges under their direction.



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## Lab Activities at 5G Lab Manipur

STPI Project Associate Laiphrakpam Prithvee Singh visited the 5G Lab, where a demonstration of the lab's capabilities took place. Discussions were held with the Nodal Officer regarding potential future collaborations, including joint workshops.



During a visit to the lab, students expressed interest in a face recognition project using the ESS32 CAM. The lab has offered full support, providing access to necessary tools and equipment to assist with their project.





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## Lab Activities at 5G Lab Mizoram

Multiple sessions of the 5G Certification Course were conducted, covering fundamentals, use cases, and emerging trends in 5G technology.



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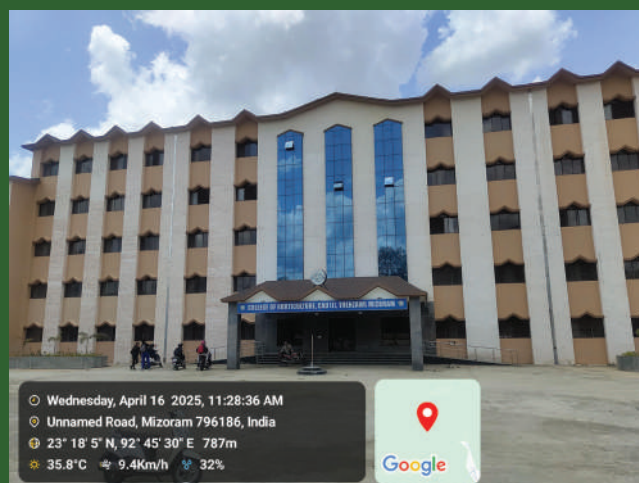


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## Lab Activities at 5G Lab Mizoram

Met with a faculty member at Thenzawl Horticulture College in the absence of the Academic Dean; a follow-up visit is planned for next week.





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## Lab Activities at 5G Lab Mizoram

A representative from the planning team visited our 5G Lab to understand ongoing projects and explore collaborative opportunities.



Visited Greenland School and discussed the possibility of conducting a 5G awareness program with the Principal.



Final-year students have initiated an IoT-based project in collaboration with our lab, aiming to explore real-world applications.



Visited Brilliant Higher Secondary School and met with the Principal to discuss the 5G project and certification course; due to scheduling conflicts, the session is planned for next week.



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## Lab Activities at 5G Lab Mizoram

Certificate Course Conducted at GHSS Serchhip and successfully delivered a certification course titled “Evolution from 1G to 5G” at Government Higher Secondary School, Serchhip.



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Serchhip, Mizoram, India

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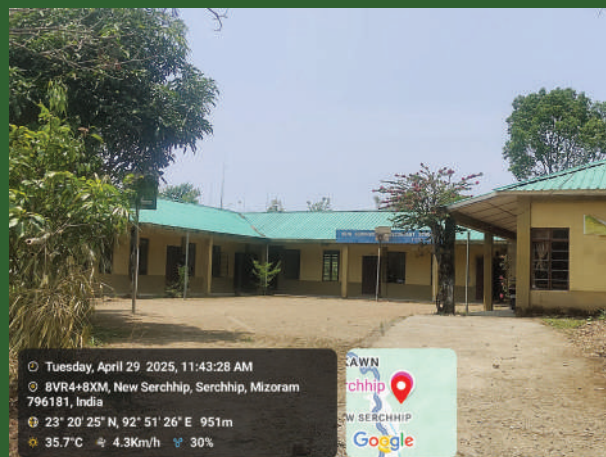


## Lab Activities at 5G Lab Mizoram

Visited Government Higher Secondary School and met the Principal to introduce the 5G certification course. The session was approved and scheduled for April 25, 2025.



Visited Government PCR High School and discussed the 5G certification course with the Principal, who confirmed the session for May 2, 2025.





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## Lab Activities at 5G Lab Sikkim

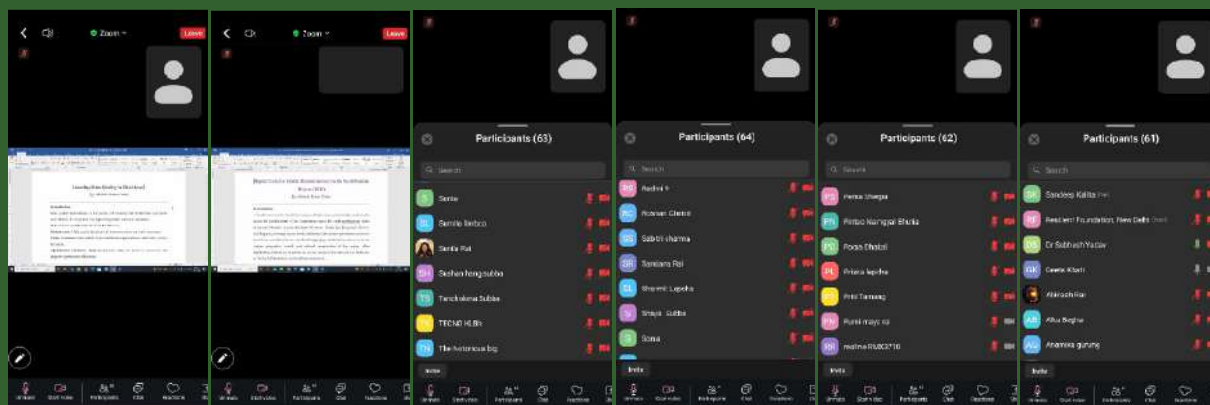
Faculty members from the Department of Geography visited the lab to explore potential use cases of 5G technology.



Three enthusiastic students from the college visited the lab today. During the visit, a live demonstration of Internet of Things (IoT) applications was conducted to showcase practical implementations and spark further interest in emerging technologies.



A dedicated workshop on Digital Health was successfully conducted with active participation from students across disciplines. The session aimed to provide insights into health-tech innovations and digital transformation in healthcare. A dedicated workshop on Digital Health was successfully conducted with active participation from students across disciplines. The session aimed to provide insights into health-tech innovations and digital transformation in healthcare.



Digital Health Workshop Day1

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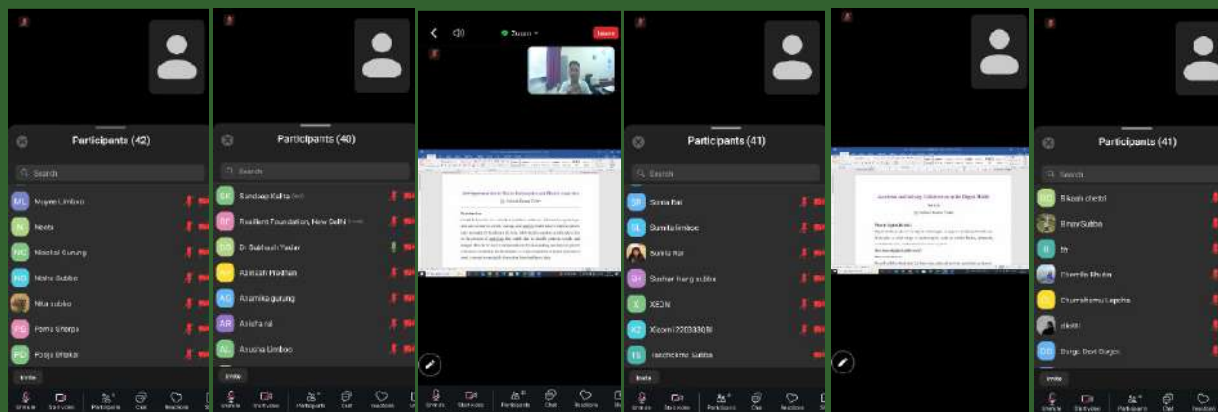
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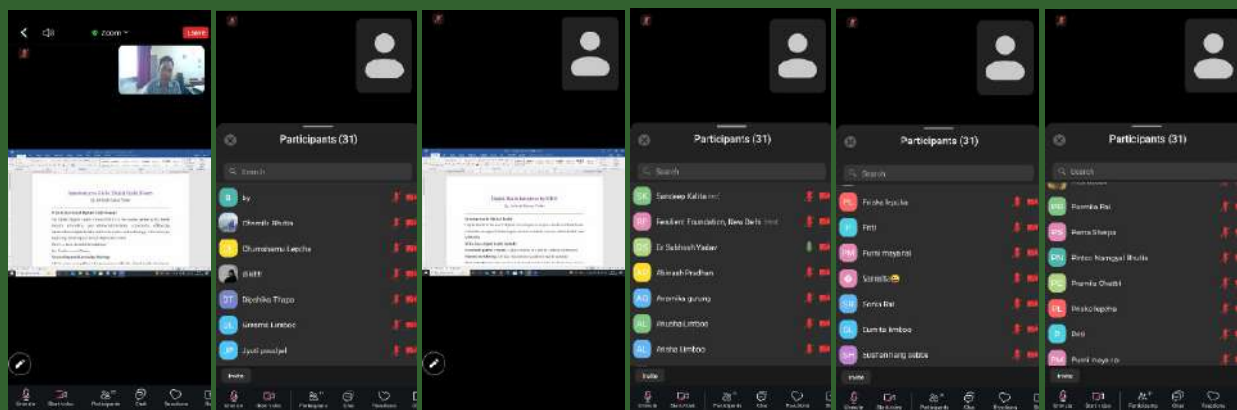
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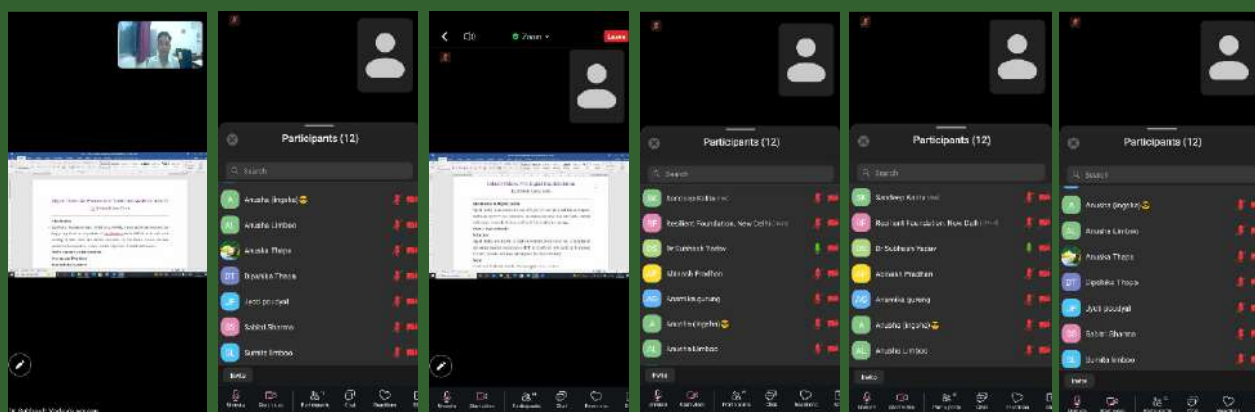
## Lab Activities at 5G Lab Sikkim



Digital Health Workshop Day 2



Digital Health Workshop Day 3



Digital Health Workshop Day 4





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## Lab Activities at 5G Lab Assam

Digital health workshop on: Data Protection and Ethical Issues in Digital Health.



Digital health workshop on: Guidelines and Standards for use of Digital Health Interventions.



Digital health workshop on: Wearable Diagnosis Devices for Healthcare in NER.



Digital health workshop on: Digital Health Interventions for Environment and Climate Change.



Digital health workshop on: Digital Tools for Eradication of Drug Abuse in NER.



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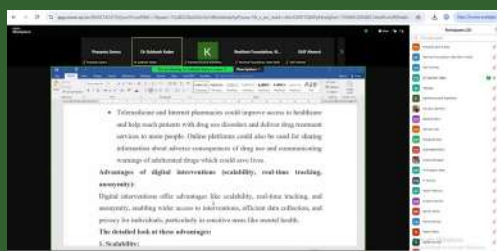


## Lab Activities at 5G Lab Assam

Digital health workshop on: Digital Platform for Disease Surveillance in NER.



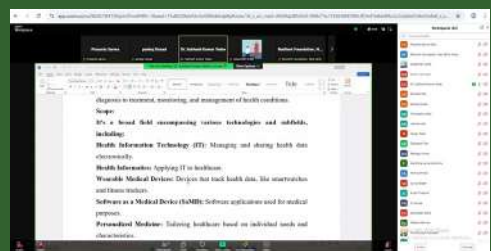
Digital health workshop on: Digital Platform for monitoring of Zoonotic Diseases in NER.



Digital health workshop on: Application of IT tools for Disaster Management in NER.



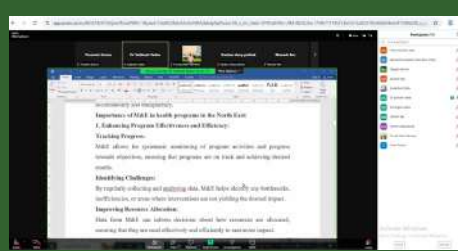
Digital health workshop on: Digital Health Initiatives for Hospital Management



Digital health workshop on: Digital Tools for Public Health Scientific Research.



Digital health workshop on: Digital Health Initiatives for Hospital Management.



Digital health workshop on: Digital Tools for Public Health Scientific Research.



One day workshop and 5G lab demonstration to a batch of students from Assam Don Bosco University.



One day workshop and 5G lab demonstration to a batch of students from Sri Sankardev High School.



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## Academic Initiatives and Collaborative Outreach Activities in Assam Labs

One day workshop and 5G lab demonstration to a batch of students from Green School International.



5G lab demonstration to Secretary, Dept of Public enterprises, Finance, GOI.



One day workshop and 5G lab demonstration to a batch of students from Girijananda Chowdhury University.



One day workshop and 5G lab demonstration to a batch of students from Girijananda Chowdhury University



Lab demonstration and discussion done with a team from NRL.



5G Lab demonstration and workshop on 5G and its use cases to batch of students.





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## Lab Activities at 5G Lab Assam

Visit to Sri Sankardev High School for workshop and webinar invitation.



5G lab demonstration to few professionals and discussion about opportunities on lot.



NEILIT, Guwahati visit for workshop and courses invitation.



Assam Science Society, visit for workshop and courses invitation.



College of Veterinary Science visit for workshop and courses invitation.



Nemcare Group of institutes visit for workshop and courses invitation.



D.K college mirza visit for workshop and courses invitation.



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## Lab Activities at 5G Lab Tripura

Students and teachers from Salema Colony HS School visited our 5G Lab, where a full demonstration of the equipment was provided. The group showed great enthusiasm and expressed interest in returning for future visits.



A group of internship students visited our 5G Lab to explore ongoing projects and gain exposure to the latest technologies.



On April 22, 2025, three MCA students and two participants from IP Solutions visited our lab. They were introduced to our upcoming courses and workshops and expressed strong interest in future participation.



Mr. Ravi Pardhi led a workshop on 5G technology at Tripura University, covering core concepts and emerging use cases.





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## Lab Activities at 5G Lab Tripura

A practical session on 5G technology was conducted by Mr. Ravi Pardhi at Tripura University, allowing participants to gain firsthand experience with 5G systems.



Mr. S. K. Bhalla conducted a workshop on cybersecurity at Tripura University, focusing on foundational practices and current threats.





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## Lab Activities at 5G Lab Tripura

Four first-year MCA students visited the 5G Lab and were introduced to the 5G network, use case applications, and IoT devices. They expressed interest in enrolling in upcoming training programs.



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## Lab Activities at 5G Lab Nagaland

Covered foundational concepts in 5G spectrum as part of the curriculum.



The second day of the 5G course focused on real-world 5G use cases.



A workshop on 5G technology and its applications was conducted at Salt Christian College.



Visited the IWAN Training Centre to discuss potential collaboration on 5G-related courses and workshops.



The third day of the 5G course continued with hands-on sessions and interactive discussions.



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## Lab Activities at 5G Lab Nagaland

The first batch of the 5G course concluded successfully with the final day's session.



Visited Eastern Christian College, Dimapur, and received positive feedback; the VP expressed interest in hosting a session in June.



Met with the Principal of Norman Putsure College, Chümoukedima, who showed strong interest in online workshops and courses.



Conducted a workshop on 5G technology and its use cases at GHSS Purana Bazar.





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## Academic Initiatives and Collaborative Outreach Activities in Nagaland Labs

The second batch of students began their training in 5G courses.



Delivered sessions on 5G use cases  
as part of the ongoing course  
modules.



A startup named Naga Digital,  
specializing in web development and  
Android-based applications, visited our  
lab to test their products on emerging  
IP-based technologies. Following a  
productive discussion with Mr. Ravi, they  
expressed interest in conducting regular  
trials at our 5G lab, with continued  
support from Amantya Technologies.



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## Lab Activities at 5G Lab Nagaland

Supporting AMTRON in the development of a digital tourism project.



Hands-on drone calibration and flight training conducted with assistance from Lakshay Sharma.



Participated in the Patkai Christian College Job & Career Fair to showcase our 5G lab, offerings, and received encouraging student feedback.



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## Lab Activities at 5G Lab Shillong

A visit was made to the PRIME Startup Hub, where the 5G Lab at NEHU was promoted, and an invitation was extended to explore the lab's facilities.



The team visited St. Francis D'Assisi Higher Secondary School to introduce the 5G Lab and explain its potential use cases across various fields. Students were invited to visit the lab for further engagement.



A similar visit was conducted at Shillong Higher Secondary School, where the 5G Lab's capabilities and its diverse use cases were shared with students, along with an invitation to visit the lab.

At Government ITI Shillong, discussions were held with the Principal and ICT Instructor about the integration of 5G courses. An invitation was extended to their students to explore the 5G Lab.



The team visited Government ITI (Women) Shillong, where the Principal was unavailable. However, a senior instructor was briefed on the 5G courses, and the course leaflet was shared for further consideration.





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## Lab Activities at 5G Lab Shillong

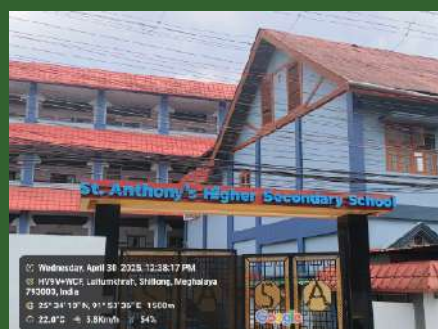
A visit to Don Bosco Technical School was conducted with the Principal to discuss the 5G Lab at NEHU, and students were invited to visit the lab for hands-on exposure.



Talked with Laitumkhrah Presbyterian Higher Secondary School Principal regarding 5G LAB NEHU and invite the students to visit 5G LAB NEHU.



The team visited St Anthony's HS School to provide an overview of the 5G Lab at NEHU, sharing information about the available 5G courses and inviting students to visit the lab.



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## Lab Activities at 5G Lab Shillong



A final visit to St Mary's HS School included a comprehensive explanation of the 5G Lab at NEHU, with course details shared and an invitation extended to students for a lab tour.



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## Lab Activities at 5G Lab Arunachal Pradesh

A delegation of officials from Guwahati visited the 5G Training & Innovation Lab at the College of Agriculture, Pasighat. During the visit, we provided an overview of the 5G Deepening Project and showcased a range of innovative use cases developed at the lab. The session highlighted how 5G technology can revolutionize agriculture and support rural development through advanced connectivity solutions, particularly in remote areas.



We visited Government Higher Secondary School to discuss the integration of 5G educational modules for students. A meeting with the Principal included an introduction to the 5G Training & Innovation Lab and an invitation for both students and faculty to explore our facilities. The conversation emphasized the role of 5G education in equipping students with future-ready skills and enhancing awareness of emerging technologies in the context of rural and agricultural advancement.



A visit was made to the Reliance Jio office to explore potential collaboration on 5G course integration. The technical team was introduced to the objectives of the 5G Training & Innovation Lab, and an invitation was extended for further engagement. Discussions centered on how 5G-based learning initiatives can empower youth and promote innovation in underserved regions.



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## Lab Activities at 5G Lab Arunachal Pradesh

We met with faculty members at Government Polytechnic College to discuss incorporating 5G courses into their academic offerings. The meeting included a presentation on the 5G Training & Innovation Lab and an open invitation for students and staff to experience the lab's facilities. The discussion highlighted how skill-building in 5G can create opportunities in emerging tech sectors, especially for rural youth.



A visit to NIELIT, Pasighat was conducted to explore collaboration on 5G education. The Officer in Charge was briefed on the lab's initiatives, and an invitation was extended for faculty and students to engage with ongoing programs. The conversation focused on how 5G technologies can serve as a catalyst for technical upskilling and innovation in rural contexts.



During a visit to Siang Model Higher Secondary School, we met with the Principal to introduce the 5G Training & Innovation Lab and discuss the potential integration of 5G educational programs. The invitation to visit the lab was well received, with mutual interest in equipping students with cutting-edge knowledge to prepare for a tech-driven future.

