Report
on
2-Day Workshop on
"Disaster Risk Reduction in Urban Planning, Development and Monitoring"

organized

by

Centre for Disaster Risk Reduction,

Department of Architecture, and

Department of Planning & Geomatics

Islamic University of Science and Technology,
Awantipora, Kashmir-192122 (J&K)

In collaboration with

Department of Disaster Management, Relief, Rehabilitation, and Reconstruction, Govt. of Jammu and Kashmir

VENUE: Conference Hall, Rumi Library, IUST, Kashmir

23rd – 24h, December 2025

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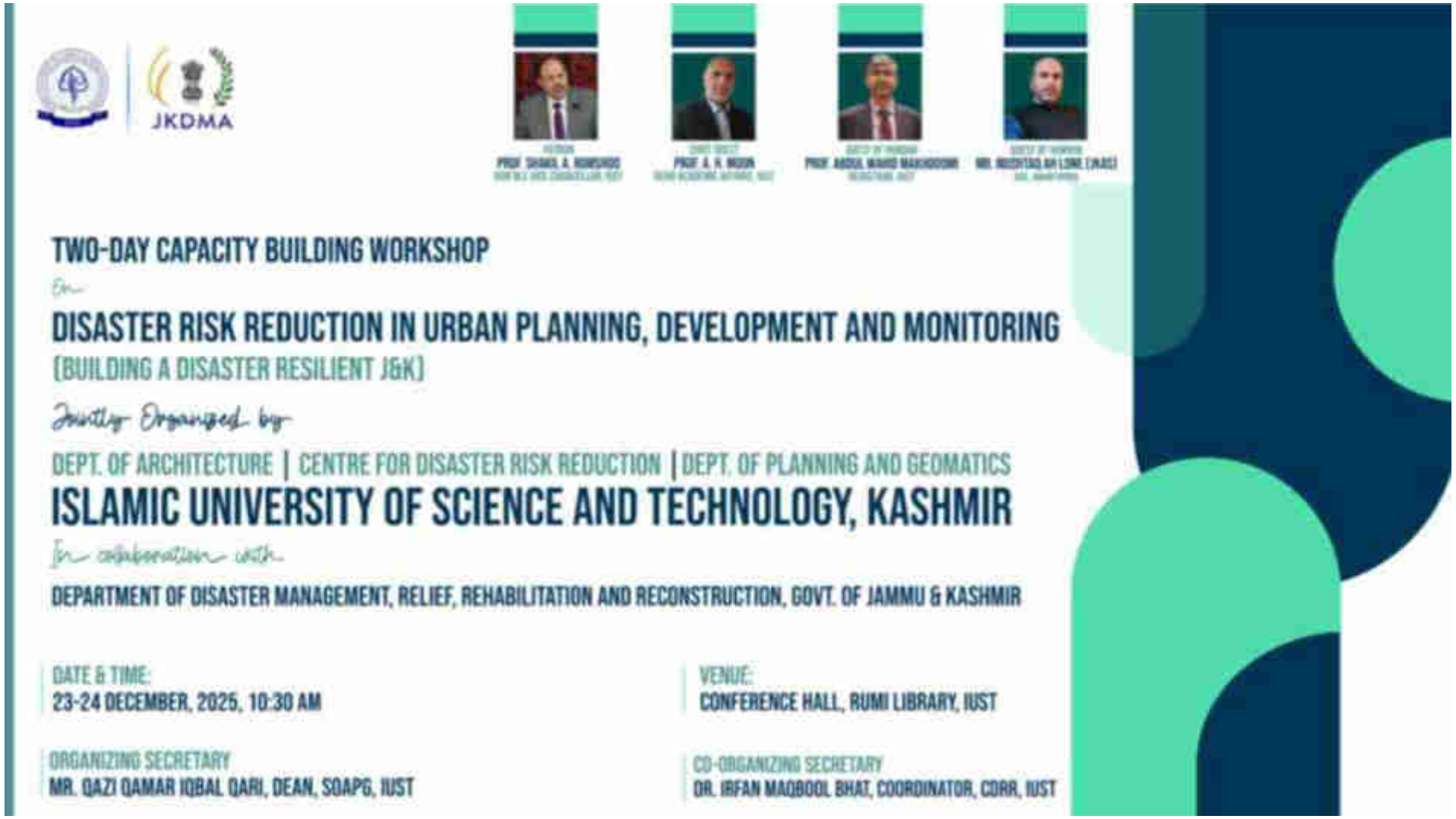

JKDMA
TWO-DAY CAPACITY BUILDING WORKSHOP
On
DISASTER RISK REDUCTION IN URBAN PLANNING, DEVELOPMENT AND MONITORING
(BUILDING A DISASTER RESILIENT J&K)
Jointly Organized by
DEPT. OF ARCHITECTURE | CENTRE FOR DISASTER RISK REDUCTION | DEPT. OF PLANNING AND GEOMATICS
ISLAMIC UNIVERSITY OF SCIENCE AND TECHNOLOGY, KASHMIR
In collaboration with
DEPARTMENT OF DISASTER MANAGEMENT, RELIEF, REHABILITATION AND RECONSTRUCTION, GOVT. OF JAMMU & KASHMIR
DATE & TIME:
23-24 DECEMBER, 2025, 10:30 AM
VENUE:
CONFERENCE HALL, RUMI LIBRARY, IUST
ORGANIZING SECRETARY
MR. QAZI QAMAR IQBAL QARI, DEAN, SOAPG, IUST
CO-ORGANIZING SECRETARY
DR. IRFAN MAQBOOL BHAT, COORDINATOR, CDRR, IUST

1. About IUST

The Islamic University of Science and Technology (IUST), located in Awantipora, Kashmir, is a premier higher education institution established with the aim of advancing knowledge and fostering innovation in science, technology, and other academic disciplines. Founded in 2005, the university has become a hub for academic excellence, research, and professional development in the region, playing a pivotal role in addressing local and global challenges. IUST offers a wide range of undergraduate, postgraduate, and doctoral programs across various disciplines, including engineering, technology, social sciences, business, humanities, and architecture. The university emphasizes a multidisciplinary approach to education, integrating modern research and teaching methodologies to enhance students' knowledge and skill sets. The university is deeply committed to promoting research and innovation. It has established several research centers and initiatives to tackle emerging issues, including the Centre for Disaster Risk Reduction (CDRR), which focuses on disaster preparedness, mitigation, and resilience-building—an increasingly vital area of study for the region. IUST prioritizes student engagement and development, offering numerous co-curricular activities, workshops, and seminars to enhance students' leadership skills, critical thinking, and professional growth. The university fosters a dynamic campus culture, encouraging students to participate in debates, sports, and other extracurricular activities. IUST maintains strong collaborations with national and international universities, research institutions, and industries. These partnerships aim to foster academic exchange, joint research projects, and knowledge-sharing in sustainable development, climate change, disaster risk reduction, and technological advancements. IUST envisions becoming a leader in higher education and research, not just within Jammu & Kashmir but also on the global stage. It is committed to empowering students to meet the needs of the modern world, with a strong emphasis on innovation, sustainability, and community service. The university's growing reputation as a center of learning is reflected in its expanding academic programs, world-class faculty, and cutting-edge research facilities, all contributing to its goal of shaping the future of education and development in the region.

2. About JKDMRRR

The Jammu & Kashmir Department of Disaster Management, Relief, Rehabilitation & Reconstruction (JKDMRRR) came into effect on 30 December 2016 vide Cabinet Decision of the J&K govt. The mission of the Department of DMRRR is to ensure the safety of communities by promoting a community-based approach to Disaster Risk Reduction (DRR). This involves reducing vulnerabilities and enhancing effective disaster response through awareness programs and capacity-building initiatives. The department is dedicated to implementing appropriate measures to prevent danger and mitigate risks, ensuring that both natural and man-made disasters are addressed comprehensively. In times of disaster, the DMRRR provides timely assistance to those in distress, helping them recover and rebuild. Additionally, the department plays a key role in resolving issues related to displaced communities, including Kashmiri/Jammu migrants, those displaced in 1947, Chhamb displaced persons (1965/1971), and West Pakistani refugees. It aims to bridge the gap in identifying sufferers of natural calamities, ensuring that all affected individuals receive the support they need. The DMRRR envisions a future where Disaster Risk Reduction (DRR) is fully integrated into all developmental initiatives, ensuring the sustainability of investments and creating a disaster-resilient Jammu & Kashmir. By enhancing the capacity of all stakeholders—governments, communities, and institutions—the department seeks to respond to disasters in a planned and effective manner, minimizing the loss of lives, livelihoods, and critical infrastructure. This includes protecting essential services like healthcare, education, and social and cultural assets from the impacts of disasters. Moreover, the department is committed to providing rapid and appropriate assistance to disaster victims, facilitating their recovery process efficiently. Alongside disaster management efforts, DMRRR continues to support Kashmiri/Jammu migrants, displaced persons of 1947, Chhamb displaced persons (1965/1971), and West Pakistani refugees, ensuring their issues are addressed and their rehabilitation needs met. The overarching goal is to make Jammu & Kashmir a safer, more resilient region, prepared to face any disaster.

3. Approval order

ISLAMIC UNIVERSITY OF SCIENCE & TECHNOLOGY, KASHMIR [IUST]

Office Order No:- 1347 **of 2025**
D a t e d: 19-12-2025

Sanction is hereby accorded to the following:

i) Organizing 02-day Training and Capacity Building Workshop on "DRR in Urban Planning , Development and Monitoring' on **December 23 & 24, 2025** jointly by the Department of Architecture and Centre for Disaster Risk Reduction.

ii) Committees as reflected in Annexure-A (printed overleaf) to this order for smooth conduct of the workshop.

By Order,

19/12/25
Sd/- **Deputy Registrar**
(Establishment)

No. IUST/Reg/Adm/25/5205
Dated: 19-12-2025

Copy to:
- Dean Academic Affairs.
- Finance Officer.
- I/c Dean, School of Architecture, Planning & Geomatics.
- All committee members.
- Concerned organizing departments.
- File.

4. Organizing and other committees

Annexure-A to O.O. NO: **Dated:**

S. No.	Name	Designation	Position
A.	**Organizing Committee**		
1.	Prof. Shakil Ahmad Romshoo	Hon'ble Vice-Chancellor	Chairperson
2.	Mr. Sameer Wazir	Finance Officer	Member
3.	Dr. Farooq Hussain Bhat	I/c Dean, School of Sciences	Member
4.	Mr. Qazi Qamar Iqbal Qari	I/c Dean, School of Architecture, Planning & Geomatics	Org. Secretary
5.	Mr. Mir Aijaz Ahmad	Asstt. Prof. , Dept. of Civil Engineering	Member
6.	Dr. Sumira Nazir Zaz	Coordinator, Dept. of ES&CC	Member
7.	Dr. Tariq Abdullah	I/c Head, Dept. of P&G	Member
8.	Dr. Irfan Maqbool Bhat	Coordinator, CDRR	Co-Org. Secretary
B.	**Technical Committee**		
1.	Mr. Qazi Qamar Iqbal Qari	I/c Dean, School of Architecture, Planning & Geomatics	Chairperson
2.	Mr. Mehran Qureshi	Assistant Professor, Dept. of Architecture	Member
3.	Dr. Tariq Abdullah	I/c Head, Dept. of P&G	Member
4.	Dr. Shujaat Hussain Buch	I/c Head, Dept. of Civil Engineering	Member
C.	**Venue Committee**		
5.	Dr. Jasia Bashir	Asstt. Prof. , Dept. of P&G	Chairperson
6.	Mr. Musawir Quadir	Asstt. Prof. (C), Dept. of Arch.	Member
7.	Mrs. Arjumand Bashir	Sr. Technical Assistant, CDRR	Member
D.	**Transport Committee**		
1.	Mr. Waseem Qader	Assistant Professor, CDRR	Chairperson
2.	Mr. Mohammad Saleem	Asstt. Prof. , Dept. of P&G	Member
E.	**Food and Catering Committee**		
1.	Dr. Tariq Ahmad Ganaie	Asstt. Prof, Dept. of Food Technology	Chairperson
2.	Dr. Yasir Altaf	Asstt. Prof. , Dept. of ES&CC	Member
3.	Ms. Sharaf Niyaz Dedmari	Asstt. Prof. (C), Dept. of Arch.	Member
F.	**Finance Committee**		
1.	Dr. Irfan Maqbool Bhat	Coordinator, CDRR	Chairperson
2.	Mr. Mehran Qureshi	Assistant Professor, Dept. of Architecture	Member
G.	**Print and Media Committee**		
2.	Dr. Sayar Ahmad Mir	Asstt. Prof. (C), Dept. of J&MC	Member
3.	Ms. Tanzeel	Asstt. Prof. (C), Dept. of Architecture	Member
3.	Mr. Zahoor Ahmad Gilkar	Jr. Technical Assistant, Deptt. of J&MC	Member

5. PROGRAMME SCHEDULE

2-Day Training and Capacity Building Workshop
On
"Disaster Risk Reduction (DRR) in Urban Planning, Development and Monitoring"
23 & 24, December, 2025
Venue: Conference Hall, Rumi Library, IUST, Kashmir

Day & Date	Activities		TIME (IST)
Day-1 (Tuesday) 23-12-2025	Registration of Participants	**Venue:** Outside the Conference Hall, Rumi Library	10:30 am–11:00 am
	Inaugural Session (Host: Ms Tanzeel, AP, Architecture, IUST)		11:00 am–11:30 am
	Welcome Address	**Mr Umar Farooq Dar** AP, Architecture, IUST	11:00 am–11:03 am
	Opening Remarks	**Mr. Qazi Qamar Iqbal Qari** Dean, SAP&G	11:04 am–11:08 am
	Address by Guest of Honour	**Mr Mushtaq Ahmad Lone** ADC, Awantipora	11:09 am–11:20 am
	Address by Chief Guest	**Prof Ayaz Hassan Moon** Dean, Academic Affairs, IUST	11:21 am–11:25 am
	Felicitation of Guests		11:26 am–11:27 am
	Vote of Thanks	**Dr. Irfan Maqbool** Coordinator, CDRR, IUST	11:27 am–11:30 am
	Tea Break (Venue: Outside the Conference Hall, Rumi Library)		11:30 am–11:45 am
	Session-1 (Chairperson: Dr Tariq Abdullah; Rapporteur: Ms Sharaf Niyaz)		
	TOPIC/ACTIVITY	**RESOURCE PERSON/ EXPERTS**	**TIME (IST)**
	Talk - 1: From Data to Decision: Harnessing Remote Sensing and GIS for Hazard Monitoring, Management, and Planning	**Raj Bhagat Palanichamy** Senior Program Manager - Sustainable Cities & Transport at WRI India	11:45 am–12:45 pm
	Question & Answer		12:45 pm–01:00 pm
	Lunch Break (Venue: CIED, IUST)		01:00 pm–02:00 pm
	Session-2 (Chairperson: Dr Jasia Bashir, Rapporteur: Mr Musawir Quadir)		

	Activity: Embedding Climate and Disaster Lens in Urban Planning	**Mr Anshul Abbasi** Lead, CCC at NIUA	02:00 pm–04:00 pm
	Tea Break (Venue: Outside the Conference Hall, Rumi Library)		04:00 pm–04:15 pm
Day-2 (Wednesday) 24-12-2025	**Session-3** (Chairperson: Mr Umar Farooq Dar: Rapporteur: Ms Sadiya Tariq)		
	Talk-2: Disaster and Development Perspectives: Making Urban Areas Resilient	**Dr Amir Ali Khan** Assoc. Prof., NIDM	11:00 am–11:45 am
	Question & Answer		11:45 am–12:00 pm
	Tea Break (Venue: Outside the Conference Hall, Rumi Library)		12:00 pm–12:15 pm
	Interactive Session : Mainstreaming Disaster Risk Reduction and Climate Resilience in Urban Planning: Challenges and Planning Interventions in Kashmir Valley	**Mr Subzar Bashir** Sr. Program Associate at WRI, India	12:15 pm–01:45 pm
	Lunch Break (Venue: CIED, IUST)		01:45 pm–02:30pm
	Session-4 (Chairperson: Dr Shujaat Hussain Buch: Rapporteur: Ms Tanzeel)		
	Talk-3: Risk Sensitive Urban Planning for Kashmir Valley	**Mr Gulzar Ahmad Dar** Jt. Commissioner Planning, SMC	02:30pm–03:30 pm
	Question & Answer		
	Tea Break (Venue: Outside the Conference Hall, Rumi Library)		03:30 pm–03:45 pm
	Valedictory Session (Host: Ms. Tanzeel, AP, DoA, IUST)		03:45 pm–04:15 pm
	Summary of Workshop	**Mr. Mehran Qureshi** AP, Architecture, IUST	03:45 pm–03:52 pm
	Certificate Distribution		03:52 pm–04:02 pm
	Presidential Address	**Dr. G.N. Itoo** Director, Centre for Good Governance and Policy Analysis	04:02 pm–04:12 pm
	Vote of Thanks	**Mr. Mohammad Saleem** AP, DoPG, IUST	04:12 pm–04:15pm
	End of Workshop		

6. List of registered/nominated participants

S. No.	Name of Participant	Designation
A	**Participants from Administrative Department of Planning**	
1	Mr. Nowshad Ahmad	Joint Director (Central), DES
2	**Mr. Suheel Ahmad Malik**	**Chief Planning Officer, Kulgam**
3	Mr. Aashiq Hussain Khanday	Chief Planning Officer, Pulwama
4	Mr. Mudasir Ahmad Dar	Chief Planning Officer, Shopian
5	Mr. Tawseef Ahmad Malik	Chief Planning Officer, Anantnag
6	Mr. Inam Ul Haq	Deputy Director (SIU) DES
7	Mrs. Kehkashan	Assistant Director, PD&MD
8	Mr. Ab Salam Bhat	Statistical Officer, PD&MD
9	Mr. Aisak Hussain Malik	Statistical Assistant, PD&MD
10	Mr. Aadil Hussain Mir	Statistical Assistant, PD&MD
B	**Participants from Srinagar Development Authority (SDA)**	
11	Syed Naseer Ahmad (JKAS)	Secretary
12	Zahid Hussain Bhat	Asstt. Ex. Engineer
13	Tariq Hussain Shamas	Asstt. Town Planner
14	Sanjay Koul	Asstt. Engineer

15	Saqib Fayaz Wani	Asstt. Engineer
16	Gh. Nabi Najar	I/C Asstt. Engineer
17	Safiya Rafiq	Naib Tehsildar
18	Ateeb Bin Rafiq	Jr. Engineer
19	Malik Urseela Bashir	Jr. Engineer
20	Sukhpreet Kour	Jr. Assistant
C	**Participants from Lake Conservation & Management Authority (LCMA)**	
21	Er. Jatinder Pal Singh	AEE (Civil)
22	Er. Yunis Majid	AEE (Civil)
23	Er. Mohd Tariq Dar	AEE (Civil)
24	Er. Danish Nabi Sumji	AE (Civil)
25	Er. Tanveer Hussain Khan	AEE (Mech)
26	Er. Mohammad Shahid Matta	AE (Civil)
27	Er. Syed Nazir Rizvi	**JE (Civil)**
28	Er. Naseer Ahmad Shah	JE (Civil)
29	Ms. Neelofar Naaz	**Scientist-A**
30	Ms. Asmat Buchh	**Scientist-A**
D	**Participants from Director Rural Development Department (RDD) Kashmir**	

31	Mohammad Muqsit Wani	BDO Khonmoh
32	Binat ul Showkat	BDO Pulwama
33	Mohammad Ashraf Mir	BDO Shadimarg
34	**Mir Dawar Habib**	BDO Srinagar
35	Rafiq Ahmad Rafiq	L/A BDO Quimoh
E	**Participants from Director Urban Local bodies (ULB), Kashmir**	
36	Mohammad Shafi Bhat	Sanitization Staff MC Anantnag
37	Rafi Ahmad Shah	Sanitization Staff MC Achbal
38	Ajaz Ahmad Peer	Incharge Sanitization MC Khrew
39	Hamid Ali Khaira	Khilafwarzi Staff, MC Pulwama
40	Shahi Jan Malik	Sanitization Staff, MC Pampore
F	**Participants from Office of the Chief Engineer PW(R&B Department, Kashmir)**	
41	Er. Ovais Nadeem	Assistant Engineer PWD Division Budgam
42	Er. Adil Rashid	Assistant engineer, PWD Division Beerwah
43	Er. Aasim Raja	Junior Engineer PWD Division Rajbagh
44	Er. Mir Abid Hussain	Junior Engineer PWD Division Soura
45	Er. Ahmar Farooq Bhat	Junior Engineer PWD Division Budgam
46	Er. Amer Shakil	Junior Engineer PWD Division Budgam

47	Er. Muzamil Nazir	Junior Engineer PWD Division Srinagar Core
48	Er. Duha Nissar Hamdani	Junior Engineer PW (R&B) Circle Srinagar South
G	**Participants from Commissioner, Srinagar Municipal Corporation (SMC), Kashmir**	
49	Gulzar Ahmad Dar	Joint Commissioner, Planning
H	**Participants from IUST, Kashmir**	
50	Dr. Shujaat Hussain Buch	AP, Dept. of Civil Engineering
51	Mr. Qazi Qamar Iqbal	Head, Dept. of Architecture
52	Mr. Mehran Qureshi	AP, Dept. of Architecture
53	Mr. Umar Farooq Dar	AP, Dept. of Architecture
54	Mr. Musawir Quadir	AP, Dept. of Architecture
55	Ms. Tanzeel	AP, Dept. of Architecture
56	Ms. Saraf Niyaz	AP, Dept. of Architecture
57	Dr. Tariq Abdullah	AP, P&G, IUST
58	Dr. Jasia Bashir	AP, P&G, IUST
59	Dr. Irfan Maqbool Bhat	AP, CDRR, IUST
60	Mr. Waseem Qader	AP, CDRR, IUST

7. Summary of the workshop

7.1. Introduction

In the context of rapid urbanisation, climate variability, and increasing frequency of extreme events, cities and urban regions are emerging as critical hotspots of disaster risk. Unplanned growth, environmental degradation, and inadequate institutional capacity have significantly amplified vulnerabilities, particularly in ecologically fragile regions such as the Kashmir Valley. Urban flooding, seismic risk, slope instability, wetland encroachment, heat stress, and infrastructure stress are no longer isolated challenges but interconnected manifestations of systemic planning gaps.

Recognising these emerging risks, the Centre for Disaster Risk Reduction in jointly with the School of Planning, Geomatics and Architecture (SPGA), Islamic University of Science and Technology (IUST), Kashmir, in collaboration with the Department of Disaster Management, Relief, Rehabilitation and Reconstruction (DMRRR), Government of Jammu & Kashmir, organised a two-day Training and Capacity Building Workshop on "Disaster Risk Reduction (DRR) in Urban Planning, Development and Monitoring" on 23rd–24th December 2025. The workshop was conceived as a platform to sensitise urban planners, engineers, architects, administrators, and researchers to the imperative of integrating disaster risk reduction and climate resilience into planning and development processes.

The overarching objective of the workshop was to strengthen institutional and professional capacities for risk-sensitive, climate-resilient, and sustainable urban development, with a specific focus on the unique geographical, environmental, and socio-institutional context of Jammu & Kashmir. The programme aimed to bridge the gap between policy, planning theory, and on-ground implementation by promoting data-driven, participatory, and integrated approaches to urban risk management.

The workshop brought together senior government officials, planners, academicians, researchers, and students, reflecting a strong institutional commitment

towards mainstreaming DRR into urban governance frameworks. The presence of experienced practitioners and national-level experts ensured that discussions remained grounded in both policy relevance and practical applicability.

7.2. Proceedings of Day 1

The workshop commenced on 23rd December 2025 with an inaugural session that set the thematic context and outlined the urgency of embedding disaster risk reduction into urban planning frameworks. The opening remarks emphasised that urban areas in Kashmir are increasingly exposed to multi-hazard risks due to unregulated expansion, encroachment on floodplains and wetlands, and neglect of terrain-sensitive planning principles. The speakers underscored that traditional development models are no longer adequate and must be replaced with integrated, risk-informed approaches.

The first technical session was delivered by Mr. Subzar Bashir, Senior Program Associate, World Resources Institute (WRI), India, on "Mainstreaming Disaster Risk Reduction and Climate Resilience in Urban Planning: Challenges and Planning Interventions for Kashmir Valley." He provided a comprehensive regional and geographic overview of the Kashmir Valley, highlighting its unique physiography, elevation gradients, and landlocked nature, which collectively influence hazard exposure and urban vulnerability. Using maps and graphics, he explained how the valley's East–West and South–North elevation profiles, combined with macro-watershed characteristics, must inform development decisions.

Mr. Bashir presented detailed insights into urbanisation trends in Jammu & Kashmir, noting the rapid increase in the number of towns, expansion of urban areas, and concentration of population in Srinagar. He critically examined existing planning frameworks and legal instruments, highlighting the absence of micro-level and regional plans, outdated master plans, and fragmented institutional arrangements. Particular attention was drawn to the lack of zonal development plans, overlapping jurisdictions, and weak coordination among planning agencies.

The session further examined urban flooding, wetland degradation, loss of

water bodies, environmental pollution, and land-use change. Case references such as the 2014 floods, shrinking of Dal Lake, loss of natural drainage networks, and decline in horticulture were used to illustrate how unplanned development has intensified disaster risks. Mr. Bashir emphasised the need for a three-tier integrated planning approach (regional, sub-regional, and local area planning) and advocated for risk-sensitive land use zoning, elevation-based planning, and basin-level strategies. The session concluded with a hands-on group activity where participants identified key risks such as flash floods and geotechnical instability and proposed planning interventions.

The second technical session of the day was conducted by Mr. Anshul Abbasi, Lead, City Climate Centre (CCC), National Institute of Urban Affairs (NIUA), New Delhi, on "Embedding Climate and Disaster Lens in Urban Planning." He highlighted climate change as a major risk multiplier, noting that hazards such as heat waves are now formally recognised as disasters. He elaborated on the increasing frequency of high-intensity rainfall events, reduction in flood return periods, and growing vulnerability of urban populations.

Mr. Abbasi discussed the roles and responsibilities of various government departments across different phases of disaster management, stressing the importance of inter-departmental coordination and proactive planning. He linked disaster risks with national development priorities such as Net Zero by 2070 and Viksit Bharat 2047, underscoring that resilience is central to sustainable growth. The session included an interactive group exercise titled "CLAP NOW – Climate Action Planning", where participants prioritised short-, medium-, and long-term actions using thematic cards. This activity promoted interdisciplinary thinking and reinforced the need for integrated climate and disaster planning.

7.3. Proceedings of Day 2

The second day of the workshop, 24th December 2025, focused on implementation challenges, monitoring mechanisms, institutional roles, and sector-specific

perspectives on disaster risk reduction.

Sessions by domain experts and practitioners elaborated on the practical aspects of integrating DRR into development projects, infrastructure planning, and urban governance. The discussions highlighted that while policies and guidelines exist, their translation into on-ground action remains weak due to capacity gaps, data limitations, and institutional silos.

Presentations and interactions underscored the importance of geotechnical investigations, slope stability analysis, and terrain-sensitive design, particularly in the hilly and mountainous contexts of Kashmir. The speakers emphasised that indiscriminate slope cutting, unregulated construction, and neglect of seismic considerations significantly increase structural vulnerability. Traditional building practices, especially timber-laced masonry and wooden structures, were noted for their better seismic performance, pointing towards the value of indigenous knowledge.

The sessions also addressed monitoring and enforcement mechanisms, stressing that issuing building permissions based on outdated master plans and without hazard assessment is technically flawed and dangerous. Participants were sensitised to the need for updated geospatial databases, hazard maps, and evidence-based decision-making.

Interactive discussions on best practices in disaster management and urban resilience highlighted examples from past disasters in the valley, including community-based rescue, informal early warning systems, and adaptive coping mechanisms. The dialogue reinforced that resilience is not only about infrastructure but also about institutions, social capital, and governance quality.

The workshop concluded with a valedictory session, where participants reflected on the learnings and reaffirmed their commitment to promoting disaster-resilient and climate-smart urban development. Certificates were distributed to all participants in recognition of their active engagement and learning. The proceedings

formally concluded with IUST reiterating its commitment to capacity building, research, and sustained engagement with government departments and urban stakeholders.

7.4. Key Recommendations

Based on the deliberations, technical sessions, group activities, and participant interactions, the following key recommendations emerged:

1. **Risk-sensitive urban planning must be institutionalised:** Disaster risk reduction and climate resilience should be mainstreamed into all urban and regional planning frameworks, master plans, and development control regulations.
2. **Three-tier integrated planning approach should be adopted:** Regional, sub-regional, and local area planning must be harmonised to address hazards at appropriate spatial scales, particularly in the Srinagar and Jammu metropolitan regions.
3. **Hazard-based land use zoning is essential:** Floodplains, wetlands, slopes, seismic zones, and ecologically fragile areas must be clearly demarcated and protected from unregulated development.
4. **Protection and restoration of water bodies and wetlands must be prioritised:** Urban resilience in Kashmir is closely linked to the health of its lakes, rivers, and wetlands, which act as natural buffers against floods and climate extremes.
5. **Geotechnical and seismic considerations must guide development:** Slope stability analysis, soil investigations, and seismic design principles should be mandatory components of all major projects.
6. **Climate change must be integrated into planning decisions:** Heat stress, changing rainfall patterns, and extreme weather events should be explicitly considered in urban design, infrastructure planning, and service delivery.
7. **Institutional capacity needs strengthening:** Urban local bodies, development authorities, and planning agencies require technical training, professional

manpower, and modern tools for effective DRR implementation.

8. **Data-driven planning should be promoted:** Use of geospatial technologies, hazard maps, and real-time monitoring systems is essential for informed decision-making and risk management.
9. **Inter-departmental coordination must be improved:** Effective disaster risk reduction requires strong collaboration between planning, revenue, public works, housing, environment, and disaster management departments.
10. **Traditional knowledge should be integrated with modern science:** Indigenous construction practices and community coping mechanisms should be scientifically assessed and incorporated into resilience strategies.
11. **Regular training and capacity building programmes should be institutionalised:** Continuous professional development is necessary to keep pace with evolving risks, technologies, and planning approaches.
12. **DRR should be mainstreamed into development monitoring:** All major urban projects should be assessed for disaster risk and climate impact at the planning, approval, and implementation stages.

8. Feedback

Feedback was collected from participants using structured evaluation forms on both Day-1 and Day-2 of the workshop. The responses provide valuable insights into the effectiveness of content delivery, relevance, interaction quality, and overall learning outcomes. The assessment reflects both quantitative ratings and qualitative inputs gathered during discussions and open-ended feedback.

Section 1: Content & Delivery Assessment

Aspect	Avg. Rating (Approx.)	Insights
Clarity of Objectives	4.5	Participants clearly understood the purpose of the workshop and appreciated the focus on integrating DRR and climate resilience into urban planning frameworks.
Relevance of Content	4.6	Highly relevant for planners, engineers, administrators, and students dealing with urban development, infrastructure, and risk management in Kashmir.
Quality of Presentations	4.4	Expert talks were well-structured, informative, and supported with case studies and practical examples.
Organisation & Time Management	4.1	Overall well managed; some sessions, particularly interactive and discussion-based ones, required more time.
Resource Persons / Facilitators	4.7	Resource persons were highly appreciated for their domain expertise, field experience, and contextual understanding of Kashmir.
Interaction & Participation	4.6	High engagement due to interactive sessions, group exercises, and open discussions.
Practical Orientation	4.5	Strong emphasis on applied learning, especially in GIS, climate planning, and risk-sensitive urban planning.
Coordination & Support Staff	4.5	Smooth registration, effective coordination, and helpful support staff noted by participants.
Overall Expectations Met	4.6	Majority of participants expressed high satisfaction and willingness to attend similar advanced trainings.

Section 2: Participant Insights

1. Skills & Knowledge Gained

Participants reported significant enhancement in both conceptual understanding and practical knowledge, particularly in:

- Application of Remote Sensing and GIS for hazard monitoring, urban flood assessment, and spatial planning
- Understanding of the climate–disaster–development nexus in urban contexts
- Integration of climate resilience and DRR principles into master planning and infrastructure development
- Concepts of risk-sensitive land use planning, floodplain management, and environmental protection

- Institutional roles and inter-departmental coordination mechanisms in disaster management
- Use of participatory approaches for urban risk identification and solution design
- Understanding of local vulnerabilities and planning gaps in Kashmir Valley
- Importance of traditional knowledge, wetlands, and natural buffers in reducing disaster risks

Participants highlighted that the workshop enhanced their ability to think strategically about urban risks and strengthened their confidence to contribute to resilient planning processes.

2. Suggestions for Improvement

Participants provided the following constructive suggestions:

- Increase duration of interactive and group-based sessions, especially planning exercises
- Include more hands-on GIS demonstrations and software-based training
- Organise field visits to flood-prone, encroached, or ecologically sensitive sites
- Provide training manuals and technical handouts for future reference
- Include more local case studies from Srinagar and other urban centres of Kashmir
- Organise advanced and thematic follow-up trainings on urban flooding, seismic risk, and climate adaptation

3. Identified Field Challenges

Participants highlighted several on-ground challenges affecting DRR in urban planning:

- Rapid and unplanned urbanisation with weak regulatory enforcement
- Encroachments on floodplains, wetlands, and drainage channels
- Limited integration of hazard information into land use decisions
- Political and social pressures affecting implementation of planning regulations
- Weak coordination between planning agencies, municipal bodies, and disaster management authorities
- Inadequate consideration of seismic safety and climate risks in building practices

These challenges reinforced the need for capacity building, institutional strengthening, and policy integration.

4. Future Topics Requested

Participants expressed strong interest in future trainings on:

- Urban flood modelling and drainage planning
- Seismic risk assessment and earthquake-resilient construction
- Climate adaptation strategies for Himalayan cities
- Use of geospatial tools in urban governance
- Nature-based solutions and ecosystem-based DRR

- Urban heat island mitigation and heat action planning
- Risk-sensitive infrastructure development

5. Key Gaps & Risks Identified

From participant feedback and discussions, the following gaps and risks were identified:

- Limited mainstreaming of DRR into statutory urban planning processes
- Inadequate technical capacity in hazard assessment and risk mapping
- Weak enforcement of building byelaws and zoning regulations
- Insufficient protection of wetlands, lakes, and natural drainage systems
- Over-dependence on reactive disaster response rather than proactive risk reduction
- Lack of integrated approach between urban planning, environment, and disaster management sectors

These gaps highlight the urgent need for institutional reforms and capacity enhancement.

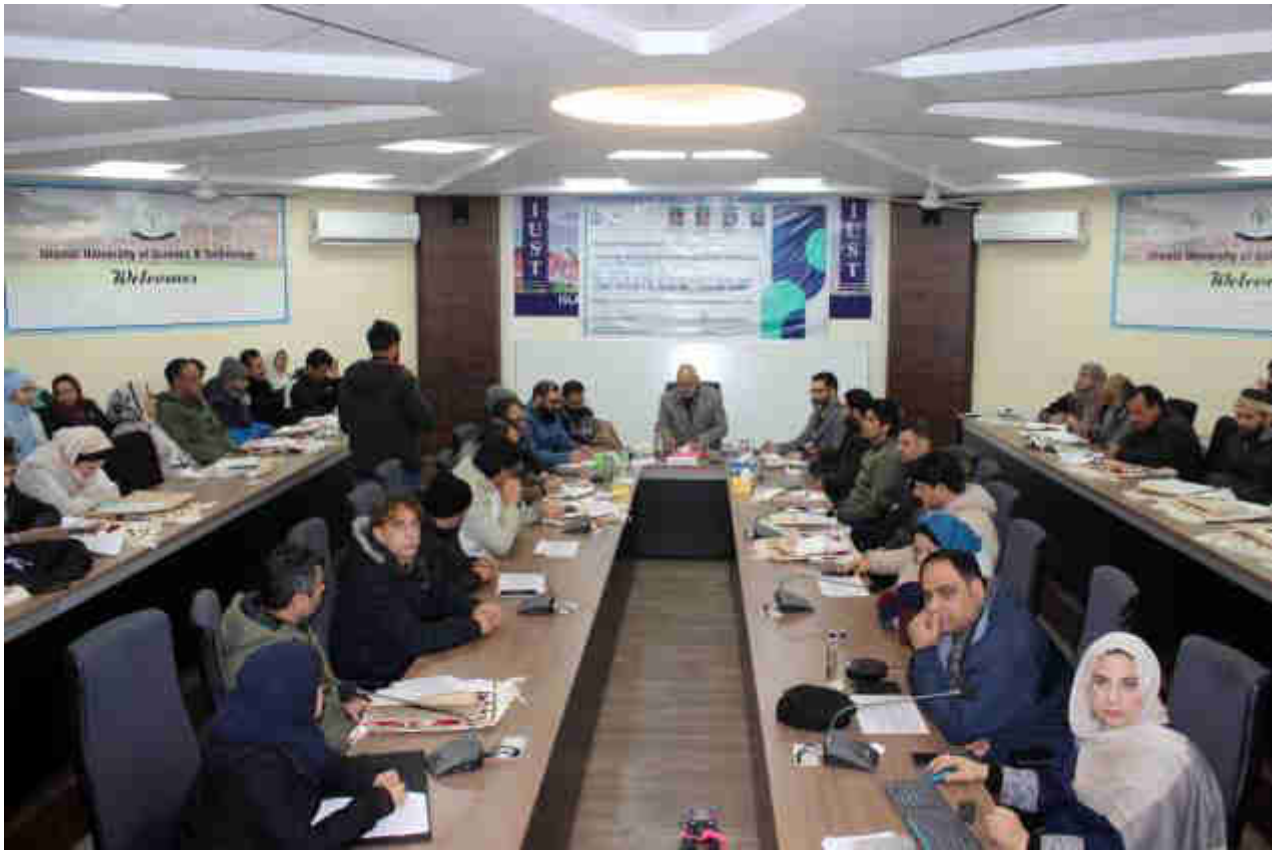
6. Recommended Actions

Based on feedback and participant inputs, the following actions were strongly recommended:

- Institutionalise DRR and climate resilience training for planners, engineers, and municipal officials
- Integrate hazard and risk maps into master plans and development plans
- Strengthen floodplain zoning and wetland protection mechanisms
- Promote risk-sensitive land use planning at all urban levels
- Develop city-specific climate and disaster resilience strategies
- Enhance inter-departmental coordination frameworks
- Encourage use of GIS and remote sensing in routine planning processes
- Organise regular capacity building programmes and refresher trainings
- Promote community participation and stakeholder consultation in urban planning

The workshop received overwhelmingly positive feedback from participants. The strong emphasis on practical application, contextual relevance, and interactive learning was highly appreciated. Participants expressed that the workshop significantly enhanced their understanding of disaster risk reduction and climate resilience in urban planning, particularly in the context of Kashmir Valley. Many participants recommended that such capacity-building programmes be replicated at district and municipal levels to reach wider sections of planners, engineers, and administrators. The workshop was widely acknowledged as timely, relevant, and impactful in strengthening the foundation for risk-informed and resilient urban development in Jammu & Kashmir.

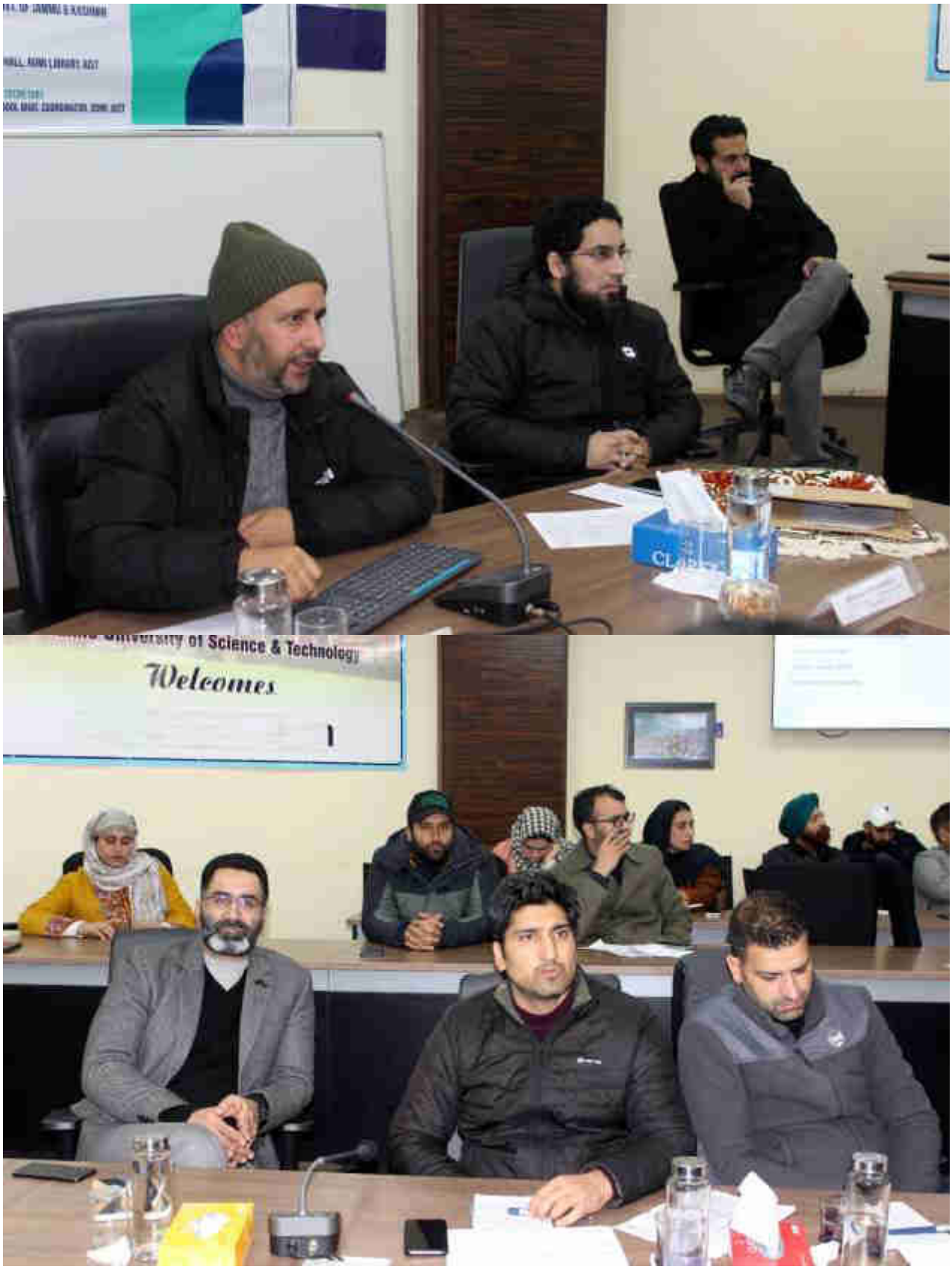
PHOTO GALLERY



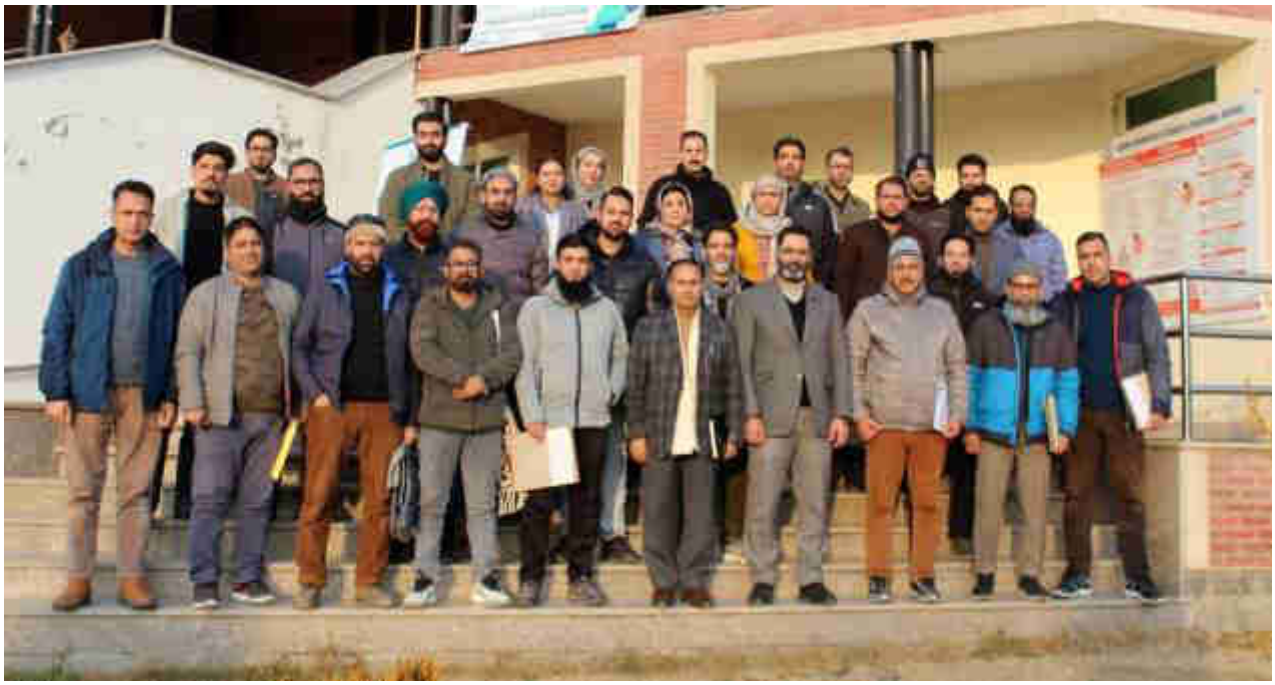
Inaugural Session presided by Prof. A.H. Moon, DAA, IUST

Welcome address by Qazi Qamar Iqbal, Dean, School of Architecture, Planning & Geomatics

Technical sessions, Day 1



Technical sessions, Day 2



Valedictory session and Group Photograph