

MWCR'22

MULTI HAZARDS WARNING & COMMUNITY RESILIENCE

Multihazard Challenges, Requirements,
& Multi Stakeholder Solutions for Risk Reduction & Resilience



School for
Sustainable
Development



United Nations
Educational, Scientific and
Cultural Organization



UNESCO Chair on
Experiential Learning for
Sustainable Innovation
and Development
Amrita Vishva Vidyapeetham
Kerala, India



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Register Now

OCTOBER 2022

25 to 26

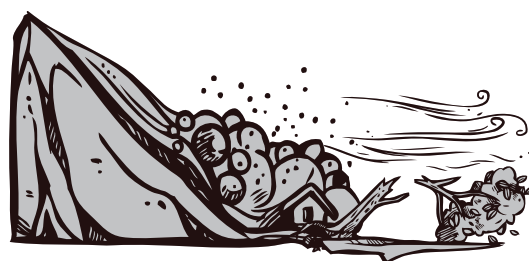
3:00 p.m. to
9:00 p.m. (IST)

T H E S Y M P O S I U M

Recent years have witnessed a drastic increase in the number of extreme events and disasters globally, which have had cascading effects on lives, livelihoods, and ecosystems around the world. The recent global conversations centred around Multi-hazard Early Warning Systems (MHEWS) have shed light on the continued challenges and limitations of the existing MHEWS and called for better integration of research, policy, good governance, and community engagement, by decision-making bodies, researchers, and practitioners in helping communities adapt to the changing landscape of threats.

MWCR 2022, thus aims to provide a platform to bring in experts in disaster management from various state disaster management authorities, national disaster

management agencies, governmental, and non-governmental international organisations, academia and think tanks to discuss and deliberate on the existing MHEW's, technologies implemented, processes and policies in place for disaster risk reduction. This aims to pave the way for universities and think tanks to engage in research and collaboration to enhance community resilience, a reality even for the most vulnerable population.



T H E M E S

- Exploration of the state of the art in MHEWs in India and worldwide
- Integration of technological solutions with indigenous/local knowledge
- Transcending boundaries for MHEWS by understanding the policies and governance mechanisms for transnational and transboundary developments and enhancements

P A R T I C I P A T I N G O R G A N I S A T I O N S



MWCR 22

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A G E N D A Day 1

October 25, 2022
03:00 - 08:55 pm IST

Inauguration Ceremony

- 03:00 - 03:05 Pm Prayer
- 03:05 - 03:15 Pm **Welcome Address**
Dr. Maneesha Vinodini Ramesh,
Provost, Amrita Vishwa Vidyapeetham, India
- 03:15 - 03:25 Pm **Address by Chief Guest:** Dr. Krishna S Vatsa, Member, NDMA
- 03:25 - 03:35 Pm **Address by Guest of Honour:** Dr. Ian Davis, Visiting Professor, Kyoto, Lund and Oxford Brookes Universities and Honorary Visiting Professor at RMIT
- 03:35 - 03:45 Pm **Felicitation:** Shri Vinod Chandra Menon, Founding Member, NDMA
- 03:45 - 03:55 Pm **Vote of Thanks:** Prof. Balaji Hariharan, Amrita Vishwa Vidyapeetham
- 03:55 - 04:05 Pm Break

Plenary Session I

Global & National Perspectives & Solutions for Multi-Hazard Early Warning

- 04:05 - 04:20 Pm **Keynote talk 1:** Dr. Shirish Ravan, Programme Officer, UN-Spider
Multi-hazard Early warning systems driven by risk information
- 04:20 - 04:35 Pm **Keynote talk 2:** Lalit Kumar Dashora, Senior Technical Specialist, ADPC,
Bangkok, Impact-based Forecasting and Warning in Southeast Asia.
- 04:35 - 04:50 Pm **Keynote talk 3:** Dr. Carina Fearnley, Director, UCL Warning Research
Centre, Enhancing Multi-Hazard Warning Effectiveness
- 04:50 - 05:05 Pm **Keynote talk 4:** Dr. Einar Bjørgo Director, United Nations Satellite Centre
(UNOSAT), UN Switzerland
- 05:05 - 05:20 Pm **Keynote talk 5:** Dr. Saibal Ghosh, Deputy Director General (Geology),
Geological Survey of India, Role, achievements, and way forward in land-
slide disaster risk reduction endeavours in India by the nodal agency - GSI
- 05:20 - 05:35 Pm **Keynote talk 6:** Dr. Piyoosh Rautela, Executive Director, SDMA,
Uttarakhand, Coping with changing disaster pattern in the state of
Uttarakhand
- 05:35 - 05:50 Pm Q&A and summing up by Chair
- 05:50 - 06:00 Pm Break

06:00 - 06:20 Pm	Keynote talk 7: Shri. SG Khanal & Keshav Koirala, Sikkim Disaster Management Authority, Early Warning System initiatives of Sikkim State Disaster Management Authority
06:20 - 06:35 Pm	Keynote talk 8: Shri S.A. Raman, IAS, Director, Tamil Nadu States Disaster Management Authority (TNSDMA), Towards a more Resilient Tamil Nadu
06:35 - 06:50 Pm	Keynote talk 9: Dr. Sekhar Kuriakose, Member Secretary, Kerala State Disaster Management Authority (KSDMA), KaWaCHaM (The Shield) - Kerala Warnings, Crisis and Hazards Management System
06:50 - 07:05 Pm	Keynote talk 10: Dr. Ian Davis, Visiting Professor, Kyoto, Lund and Oxford Brookes Universities, Critical Issues in Multi-Hazards Warning and Community Resilience
07:05 - 07:20 Pm	Keynote talk 11: Dr. Victor Marchezini,, Visiting Postdoctoral Researcher, Natural Hazards Center, University of Colorado Boulder, A Convergence Approach to Warning Systems
07:20 - 07:35 Pm	Keynote talk 12: Dr. Gopalakrishnan E A, Associate Professor, Amrita Vishwa Vidyapeetham, Early Warning Signals for Impending Hazards: A Data Driven Approach
07:35 - 07:50 Pm	Keynote talk 13: Bhavani Rao R, Director, Ammachi labs; UNESCO Chair in Women's Empowerment and Gender Equality
07:50 - 08:05 Pm	Q&A and summing up by Chair, Dr. SK Wadhawan, Adjunct Faculty, Amrita Vishwa Vidyapeetham
08:05 - 08:20 Pm	Break
08:20 - 09:20 Pm	Panel Discussions I: People centred warning systems

Day 2

October 26, 2022
03:00 - 09:15 pm IST

03:00 - 03:05 Pm	Introduction
03:05 - 03:20 Pm	Keynote talk 14: Dr. Daren Chian, Nanyang Technological University, Singapore, Estimating Earthquake Damage and Its Role in Disaster Preparedness
03:20 - 03:35 Pm	Keynote talk 15: Dr. Maneesha V. Ramesh, Provost and UNESCO Chair on Experiential Learning for Sustainable Innovation & Development, Amrita Vishwa Vidyapeetham, India
03:35 - 03:50 Pm	Keynote talk 16: Dr. David Lallemand, Nanyang Technological University, Singapore, Building a More Resilient Future in the Face of Uncertain Extremes
03:50 - 04:05 Pm	Keynote talk 17: Mr. Chris Quinn, Principal & Founder, Resilient Projects, Low Cost Sensors for Disaster Risk Reduction
04:05 - 04:20 Pm	Keynote talk 18: Prof. Ronni Alexander, UNESCO Chair on Gender and Vulnerability in Disaster Risk Reduction Support, Kobe University, Japan, UNESCO Chair: Focusing on the importance of taking a gender sensitive approach to disaster
04:20 - 04:35 Pm	Q&A and summing up by Chair, Prof. Dhanya, Amrita Faculty

04:35 - 04:45 Pm Break

04:45 - 05:30 Pm **Panel Discussions II:** Government, Industries, Non-profits in MHEWs. What is next?

05:30 - 05:40 Pm Break

05:40 - 05:55 Pm **Keynote talk 19:** Prof. Deepthi Wickramasinghe, Professor in Zoology and Environment Sciences, University of Colombo, Sri Lanka, Nature-based solutions and Eco-DRR: Key knowledge gaps and challenges for sustainable development

05:55 - 06:10 Pm **Keynote talk 20:** Shri Sunil Jayaweera, Director - Preparedness & Planning, Disaster Management Centre, Sri Lanka, Managing disasters to managing disaster risk – an insight to Sri Lanka's disaster management process

06:10 - 06:25 Pm **Keynote talk 21:** Dr. Giuseppe Formetta, Researcher, University of Trento, Italy, Assessing multi-hazard vulnerability at global scale

06:25 - 06:40 Pm **Keynote talk 22:** Dr. Yogita Shukla, Founder and CEO, AddGEO Foundation, India, GeoAI based Vulnerability Indices and Smart Decision-Making Solutions (DMS) for Climate Resilience, Adaptation and Mitigation in high altitude Western Himalayas

06:40 - 06:55 Pm **Keynote talk 23:** Dr. Surjeet Singh Randhawa, Sr. Scientific Officer, Himachal Pradesh State Council, Hazard vulnerability of Himachal Pradesh

06:55 - 07:10 Pm Q&A and summing up by Chair

07:10 - 07:15 Pm Break

07:05 - 08:05 Pm Research by Young Scholars

08:15 - 08:25 Pm **Welcome Address**

08:25 - 08:40 Pm **Address by Chief Guest:**

08:40 - 08:55 Pm **Address by Guest of Honour:** Dr Mrutyunjay Mohapatra, Director General of Meteorology, India Meteorological Department, Govt. of India

08:55 - 09:05 Pm Summary of MWCR 22

09:05 - 09:15 Pm Vote of Thanks

PROGRAM CHAIR



Dr. Maneesha Vinodini
Ramesh

UNESCO Chair on
Experiential Learning for
Sustainable Innovation
& Development; Provost,
Amrita Vishwa Vidyapeetham

CO-CHAIR



Prof. Sudha Arlikatti

Professor & Research Head,
School for Sustainable
Development, Amrita Vishwa
Vidyapeetham

ADVISORY COMMITTEE



Shri. Gopinathan
Achamkulangara

Inspector, Joint Inspection
Unit, UN System



Dr. Ian Davis

Visiting Professor, Kyoto, Lund
and Oxford Brookes Universities
and Honorary Visiting
Professor, Royal Melbourne
Institute of Technology (RMIT)
in Europe, UK



Dr. P Venkat Rangan

Vice Chancellor,
Amrita Vishwa
Vidyapeetham, India



Prof. Rajib Shaw

Professor, Graduate School
of Media and Governance,
Keio University, Japan



Sri. Vinod Sharma

Vice Chairman, Sikkim
State Disaster Management
Authority, India



Shri. K J Ramesh

Director General (Retd),
India Meteorological
Department, India



Anup Karanth

Senior Disaster Risk
Management Specialist
(Social, Urban, Rural &
Resilience Global Practice) at
World Bank Group, USA



Prof. Vinod Chandra
Menon

Founder Member, NDMA,
Government of India,
Adjunct Professor, Amrita
Vishwa Vidyapeetham, india

CHIEF GUESTS



Inaugural Ceremony
Sri Krishna S Vatsa
Member, National
Disaster Management
Authority (NDMA)



Valedictory Ceremony
Dr. Mrutyunjay Mohapatra
Director General of
Meteorology, India
Meteorological Department,
Government of India

KEYNOTE SPEAKERS



Dr. Einar Björge
Director, United Nations
Satellite Centre (UNOSAT),
Switzerland



Dr. Ian Davis
Visiting Professor, Kyoto, Lund
and Oxford Brookes Universities
and Honorary Visiting
Professor, Royal Melbourne
Institute of Technology (RMIT)
in Europe, UK



Dr. Shirish Ravan
Programme Officer, UN-
Spider



Shri. Sunil Jayaweera
Director - Preparedness
& Planning, Disaster
Management Centre, Sri Lanka



Dr. Darren Chian
Director, Centre for Soft
Ground Engineering,
National University of
Singapore, Singapore



Dr. Carina Fearnley
Director, UCL Warning
Research Centre, UK



Dr. Saibal Ghosh
Deputy Director General
(Geology), Geological Survey
of India



Shri. Sekhar L. Kuriakose
Member Secretary and Head
SEOC, Kerala State Disaster
Management Authority, India



Shri. S.A. Raman IAS
Director, Tamil Nadu State
Disaster Management,
Authority, India



Dr. Piyoosh Rautela
Executive Director,
Uttarakhand State Disaster
Management Authority, india



Dr. Dijan Bhattarai
Under secretary, National
Emergency Operation Center,
Nepal



Dr. Maneesha Vinodini
Ramesh
UNESCO Chair on
Experiential Learning for
Sustainable Innovation
& Development; Provost,
Amrita Vishwa Vidyapeetham



Prof. Ronni Alexander
UNESCO Chair on Gender
and Vulnerability in Disaster
Risk Reduction Support,
Kobe University, Japan



Bhavani Rao R
Director, Ammachi labs;
UNESCO Chair in Women's
Empowerment and Gender
Equality; Chairperson &
Professor, Department of
Social Work, Amrita Vishwa
Vidyapeetham, India



Mr. Chris Quinn
Principal & Founder,
Resilient Projects, Australia



Shri. G.C.Khanal
Director (RTD) Sikkim
State Disaster Management
Authority, India



Dr. Lok Bijaya Adhikari
Chief (Senior Divisional
Seismologist), National
Seismological Center



Shri. Lalit Kumar Dashora
Senior Technical Specialist,
ADPC, Thailand



Dr. Manoj P
Dean, Amrita School of
Business, Amrita Vishwa
Vidyapeetham, India



Dr. Yogita Shukla
Founder and CEO, AddGEO
Foundation, India



Prof. Devesh Walia
Professor, Environmental
Studies Department, North-
Eastern Hill University, India



Prof. Deepthi
Wickramasinghe
Professor in Zoology and
Environment Sciences,
University of Colombo, Sri Lanka



Dr. Surjeet Singh
Randhawa
Sr. Scientific Officer, HP State
Council, India



Dr. Sreevalsa Kolathayar
Associate Professor, National
Institute of Technology,
Karnataka, India



Dr. B. Soundharajan
Associate Professor, Amrita
Vishwa Vidyapeetham, India



Dr. David Lallemand
Assistant Professor, Asian School
of the Environment, National
Research Foundation Fellow,
Principal Investigator, Earth
Observatory of Singapore,
Singapore



Dr. Gopalakrishnan E A
Associate Professor, Center for
Computational Engineering
and Networking (CEN), Amrita
Vishwa Vidyapeetham, India



Dr. Giuseppe Formetta
Researcher, University of
Trento, Italy



Dr. Victor Marchezini
Visiting Postdoctoral
Researcher, Natural Hazards
Center, University of
Colorado Boulder, Italy



Shri. Keshav Koirala
Disaster Management
Officer, Sikkim State Disaster
Management Authority,
Sikkim, India

MWCR2022

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