

The First International Research Awareness Workshop (IRAW)

(16-06-2022 to 18-06-2022 3 days)

MITIS has taken an initiative to promote its capabilities at the international level in the research and development arenas. With this noble thought, with all the support of Dr. Eswar, Senior Researcher, Pusan National University, Korea, MITIS has organized the first International Research Awareness Workshop (IRAW to create “A Path for New Innovations.” The objective of this workshop is to enlighten and expose the staff and the students to the innovative research activities happening in renowned institutions across the globe.

Report on First Day Deliberations:

The distinguished scientists from IIST (Indian Institute of Space Science & Technology- Tiruvananthapuram- Kerala) had arrived. Prof. Priyadarshanam, Dept of Avionics and Prof. Dr. Harsha Simha M. S (Dept. of Avionics) both of them were the Scientists working on Small-spacecraft Systems and PAYload Centre (SSPACE), IIST Tiruvananthapuram along with Dr. Eswar Prof. Eswar Sunkara, Senior Researcher, Pusan National University - South Korea had arrived into the campus and they had an initial meeting with the Principal and other administrators.

Later there was a formal meeting held in Board Room with all the HoDs and researchers of various departments, in which they throw light on the mission “**Small Satellite Launch Program.**” At the outset Principal Dr. Yuvaraj, C had extended a hearty welcome to the guests and gave a brief about the research activities of MITIS. Later, Dr. Eswar took a lead to give a brief about the entire program. Mrs. U. Vijaya Lakshmi IRO- Coordinator introduced the guests profile to the participants. The objectives of the mission and the entire event were discussed. Before the Workshop, the objectives of the workshop were introduced to the faculty. Later in the **Press Meet** the brochure of the next day’s program is released. Dr. Yuvaraj C , Dr. Eswar, . Prof. Priyadarshanam, and Prof. Dr. Harsha Simha M. S and Dr. Thulasiram Naidu R gave their insights to the press. Mrs. U. Vijaya Lakshmi IRO-Coordinator proposed the vote of thanks.

After completing the formal meeting there was another introductory program scheduled in the Seminar Hall-A, to all the researchers of the Engineering depts and also to the Basic Science Researchers. The guests were introduced to all the participants and the event objectives were highlighted. The Scientists from IIST enabled the collaborative activities happen in **IIST** and inspired all the researchers of MITIS. A very effective interaction took place during the session. Dr. Eswar addressed the gathering stating the importance of research activities and reiterated that the growth of the academic organization depends on the researches and the

publications. The objectives of Satellite Program were explained to the gathering. Mrs. U. Vijaya Lakshmi IRO- Coordinator proposed vote of thanks and the meeting ended with an instilled inspiration.

Day: 2 17-06-2022

Report on Second Day Deliberations

The day two was held in MITS auditorium on 17-06-2022. The inaugural session has started at 9.00 AM as per the schedule. At the outset there was a cordial welcome note by Dr. C. Yuvaraj, the Principal of MITS. The Guest of Honour of the event was **Dr. Venkat Ratnam** (Shanti Swarup Bhatnagar Awardee) Senior Scientist, Head National Atmospheric Research Laboratory (**NARL**), Tirupati. Hon'ble Academic Council Member Mr. Sisir Koppaka and Executive Director Ms. Keerthi Nadella extended a warm welcome to all the distinguished guests. The dignitaries on the dais were Dr. C. Yuvaraj Principal MITS, Dr Venkat Ratnam Senior Scientist, Head National Atmospheric Research Laboratory (NARL), Tirupati, Prof. Eswar Sunkara Senior Researcher- Pusan National University- Korea, Dr. Priyadarshanam from Indian Institute of Space Science and Technology (IIST)-Tiruvanantapuram, Dr. Harsha Simha M. S from Indian Institute of Space Science and Technology (IIST)-Tiruvanantapuram, Dr Raghavendra Ashrit ,Scientist- F National Centre for Medium Range Weather Forecasting (NCMRWF), Ministry of Earth Sciences (MoES), Dr. Niranjan Kumar Kondapalli -Scientist 'D' Centre for Medium Range Weather Forecasting (NCMRWF) Ministry of Earth Sciences MoES), Mr. Sisir Koppaka, hon'ble Academic Council Member and Executive Director Ms. Keerthi Nadella. It was a ceremonious inaugural session, with a prayer and lighting up of the lamp.

The highlight of the event is that the link went across the globe and from different geographical, time zones, the luminaries witnessed the whole event and took an active part in sharing their valuable insights on the climate changes and other collaborative activities of their respective fields. Dr. Jothiram Vivekanandan , Senior Scientist National Centre for Atmospheric Research (NCAR) Boulder, NASA Colorado USA, Dr. Chalachew Kindie Mengist, Scientist, Adama Science and Technology University , Adama Ethiopia, Dr. Olusegun F. Jonah Researcher NASA were the resource persons.

In the inaugural session, all the luminaries were introduced to the participants in the auditorium. All the honourable guests had been introduced by the Dept of English & Foreign Languages. All the distinguished guests had given their opening remarks. The inaugural session ended up with the closing remarks by Dr. Eswar. Dr. John Paul proposed the vote of thanks.

Dr. S. Shanmuga Priya of English Dept introduced the Profile of Dr. Jothiram Vivekanandan, Senior Scientist National Centre for Atmospheric Research (NCAR) Boulder, NASA. The workshop had begun with the first international **Virtual Talk** by Dr. Jothiram Vivekanandan on the topic, the activities of **National Centre for Atmospheric Research, Boulder, Colorado -USA** Earth Observing Laboratory (EOL). He enabled the faculty that NCAR was instrumental in developing lidar, light radar, now a key archaeological tool, as well as providing a broad array of tools and technologies to the scientific community for studying Earth's atmosphere, Atmospheric models of weather, chemical, solar, and climate processes, including cooperatively developed models such as:

- Community Earth System Model (CESM)
- Weather Research and Forecasting model (WRF)
- Whole Atmosphere Community Climate Model (WACCM)

After the session the floor was open for interaction. Dr. Eswar had asked him in which way NASA can collaborate and support MITS. With a positive reply and the session came to an end.

Soon after high tea the sessions started with the profile reading of Dr. Venkat Ratnam -Shanti Swarup Bhatnagar Awardee, NARL by Dr. V.B Saktheeswar Dept of English. The awe-inspiring speech of Dr. Venkat Ratnam had enthralled the audience on the topic **Integrated approach in Science and Technology for a Sustainable Future (Atmospheric Science Perspective)**. He highlighted the significance of techniques to probe the **“Earth's atmosphere and Understanding the Science behind the Climate change over India.”** He reiterated on the importance of the sensitivity towards environment and the Climate Change. Later the collaborative activities of NARL on radar operations had been brought to the lime light. He inspired the faculty about the **“Remote sensing Measurement Techniques – Radio and Optical” in coordinating with the radars Lidars**. The activities of various organization to minimize the hazards of the climate changes, had been well narrated. He welcomed the faculty to visit NARL and to gain first-hand experience in these sensitive equipments.

Dr. P. Mohanan from Dept of English had introduced the profile of Dr Raghavendra Ashrit ,Scientist- F, from the Ministry of Earth Sciences (MoES), New Delhi to the audience. Dr Raghavendra Ashrit threw light on the various factors affecting Climate Change. Very vulnerable points like melting of Polar ice caps, El nino and weathering etc. How the interventions of Science & Technology minimize the natural hazards was very appealing? He gave a detailed account about how to forecast the hurricanes, tornados, storms and various methods to collect data and predicting the hazard by synchronizing the data.

After the lunch break, the profile of Dr. Priyadarshanam from Indian Institute of Space Science and Technology (IIST)-Tiruvananthapuram, had been introduced by Dr. K. Lakshmi Devi, Dept of English. He highlighted Mission Satellite Program.

Further, Dr. S. Mohan Kumar, Dept of English introduced Dr. Harsha Simha M. S and Dr. Priyadarshanam from Indian Institute of Space Science and Technology (IIST)-Tiruvananthapuram together enlightened the entire audience about the building of Small Satellite, removal debris, Space Atmosphere ADCS for Satellites etc. How the multi-disciplinary techniques are involved in the preparation and launch of Small Satellite and the various issues related in the prototype. The various collaborative activities that take place in IIST are let known to the audience. The special mention about the removal of Space Debris by the drove satellite super net from the space was cast a spell on the audience.

Later Profile of Dr. Chalachew Kindie Researcher, Adama Science and Technology University Adama Ethiopia by Mr. Umesh Dept of English was introduced to the audience. Later the virtual talk from Ethiopia had started about **“The Global Positioning System Applications” (GPS)** and how the knowledge of Electronics & Communication Engineering is in the application mode. The innovative methodology of GPS and the latest experiments have enthralled the audience.

After tea break, the session began with Mr. R. Sriganesh from Dept of English, introducing the profile of Dr. K. Niranjan Kumar, Scientist, National Center of Medium Range Weather Forecasting Ministry of Earth Sciences, Government of India to the audience. **“Weather and Climate Modelling at NCMRWF and Career Opportunities”** in weather forecasting field. He covered the topics the vision and mission of MoES, ranges of weather forecasting, Data assimilation, seamless modelling system, how to mitigate the natural hazards, Regional Coupled Model for Monsoon/Severe Weather and the collaborative MoES activities with NASA, he had highlighted. He had given his insights an Apps, Machine learning, Super computer and Modelling, which is the way forward using Machine leaning and Artificial Intelligence techniques.

Finally, the sessions had come to an end with the concluding remarks of Dr. Eswar. This was followed by felicitation program. The honourable guest had been felicitated in a befitting manner with shawls and mementos. The second workshop has a successfully ending. Vote of thanks was proposed by Dr. Eswar and Mrs. Vijaya Lakshmi program Coordinator.

Day: 3 18-06-2022

Report on Third Day Deliberations:

The day started with the interaction in the Board room. All the dignitaries, the administrators and the research team of MITS interacted with an action plan. The meeting went on for 2 hours.

- Future Plans for “Unstoppable Mission” -
- Once in 6 months an international workshop shall be conducted.
- Establishment of research centres
- Impetus to international collaborations
- Financial support from renowned organizations
- Establishment of ground station.

Later Dr. Thulasiram Naidu, Vice Principals, Deans and HoDs accompanied the guests for a campus tour and labs' visit. After high tea, interaction with the students in the auditorium was scheduled. The dignitaries Dr. Venkata Ratnam, Bhatnagar Awardee addressed the faculty and students, followed by active interactions. He extended an open invitation to **NARL** to all the students to gain first-hand knowledge about the radar systems and the activities of NARL for the benefit of the mankind. The enthusiastic participation of the students was well taken and appreciated by the honourable guests. The actively interacted with the luminaries. Similarly, Dr. Niranjana Kumar from MoES had addressed the students and brought into the lime light about the activities of MoES. He enlightened the students about **Weather and Climate Modelling at NCMRWF- New Delhi** and various career opportunities. He also focussed on the collaborative techniques of Machine learning & artificial intelligence to bring new technologies become handy in daily needs of the common men. In addition to that the Weathering App of the Govt he promoted and highlighted. The students understood the application of the knowledge they are acquiring and how that can be utilized for the mankind. There was an open invitation for all the students and faculty to visit and to initiate internship activities in the renowned organizations viz. NARL, MoES, IIST.



A Warm Welcome on the First day IIST Professors



Board room- Meeting with MITS administrators



IRAW Broacher reseald in the Press Meet



Press Meet

Seminar Hall A-- Addressing The Faculty and Research Heads



Faculty and Research Heads



Faculty and Research Heads



Welcome note- Dr. Yuvaraj





Keynote address by Prof. Priyadarshanam (IIST)

Day : 2



Ceremonial Welcome by NCC Team



Ceremonial Welcome by NCC Team



Inaugural function – Lighting of the Lamp

Inaugural function – Lighting of the Lamp



Invocation Song



Auditorium – MITS Management and Dignitaries



Welcome note- MITS Principal



Welcome note – Ms Keerthi Nadella (Executive Director MITS)



Audience Auditorium



Opening remarks- Dr. Venkat Ratnam (Shanti Swarup Bhatnagar Awardee) Senior Scientist- NARL



Opening remarks- Prof. Priyadarshanam from Indian Institute of Space Science and Technology (IIST) -Thiruvananthapuram



Opening remarks- Dr. Harsha Simha M. S from Indian Institute of Space Science and Technology (IIST) -Thiruvananthapuram



Opening remarks- Dr Raghavendra Ashrit, Scientist- F National Centre for Medium Range Weather Forecasting(MoES)



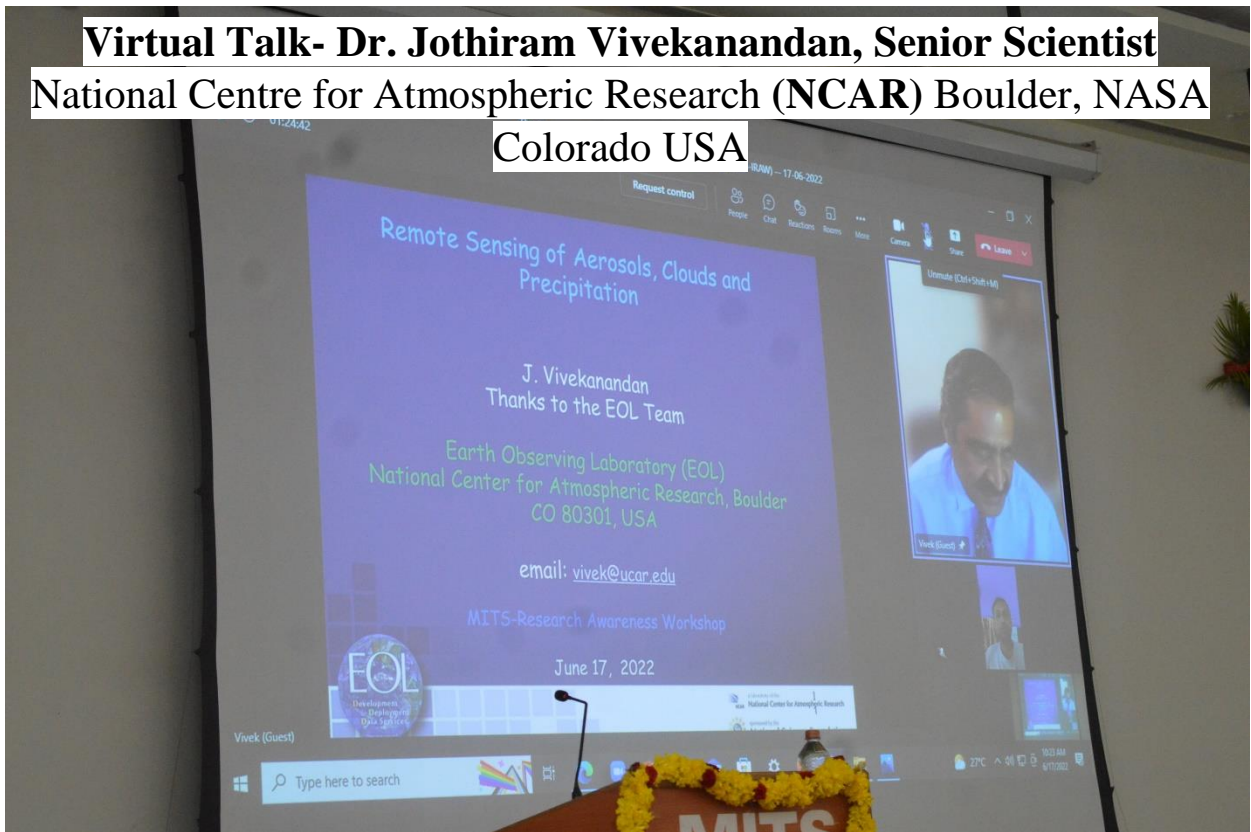
Opening remarks-Dr. Niranjana Kumar Scientist 'D' National Centre for Medium Range Weather Forecasting(MoES)



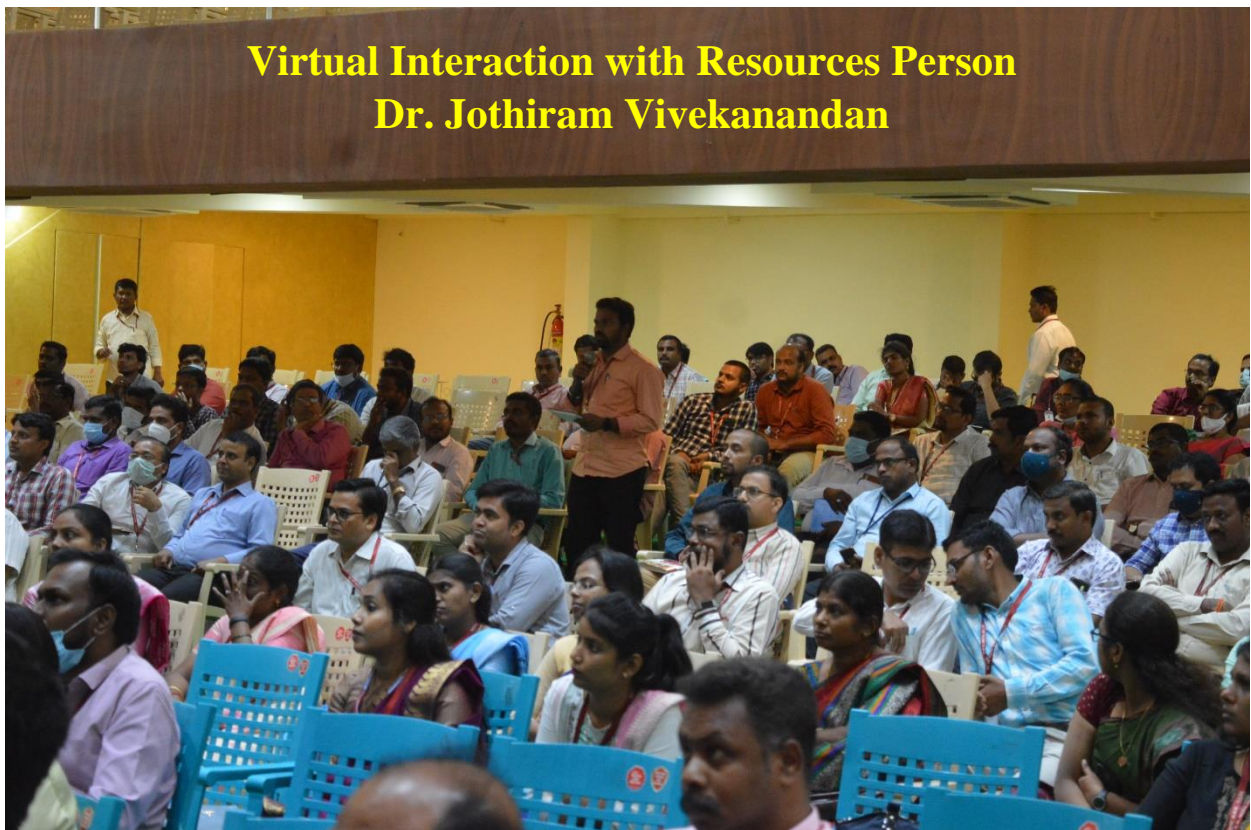
Briefing Work shop objectives- Prof. Eswae Sukara Senior Research –Pusan National University – Korea

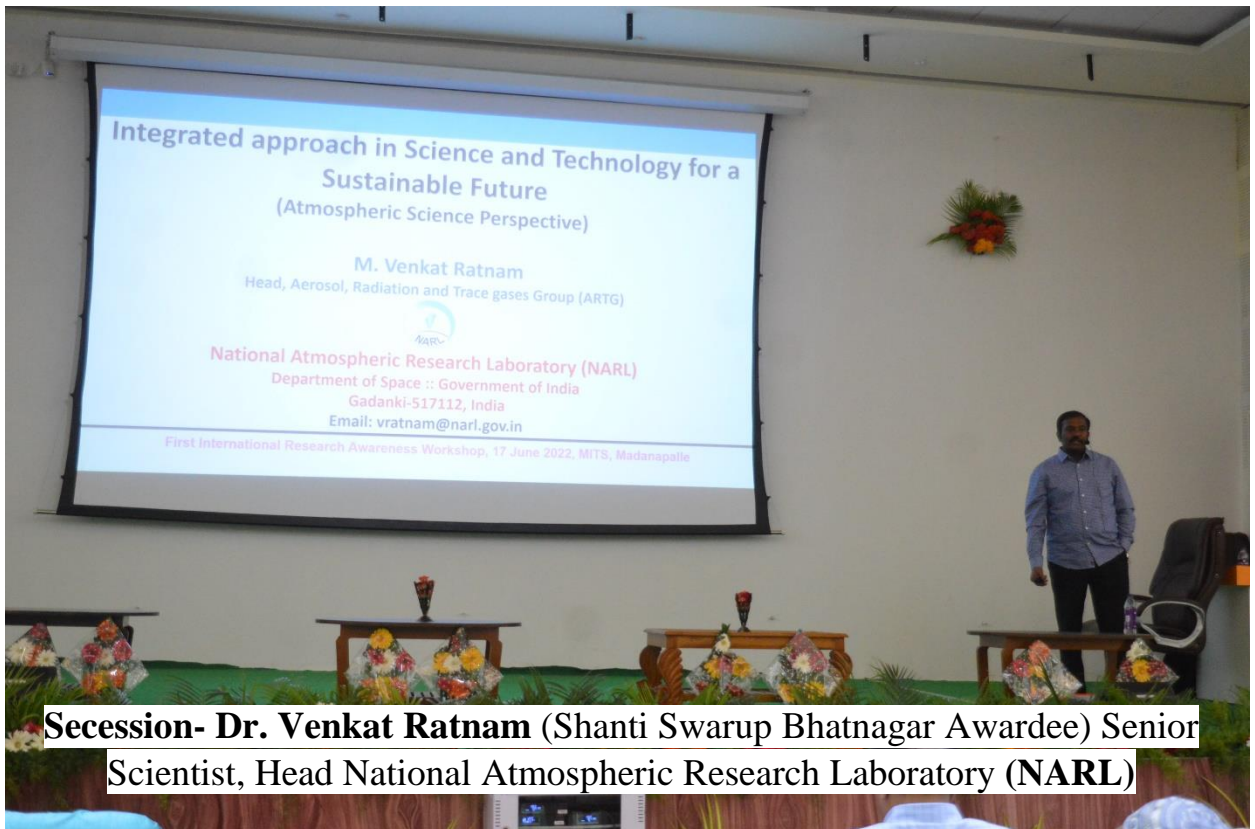


**Virtual Talk- Dr. Jothiram Vivekanandan, Senior Scientist
National Centre for Atmospheric Research (NCAR) Boulder, NASA
Colorado USA**



**Virtual Interaction with Resources Person
Dr. Jothiram Vivekanandan**





Seession- Dr. Venkat Ratnam (Shanti Swarup Bhatnagar Awardee) Senior Scientist, Head National Atmospheric Research Laboratory (NARL)



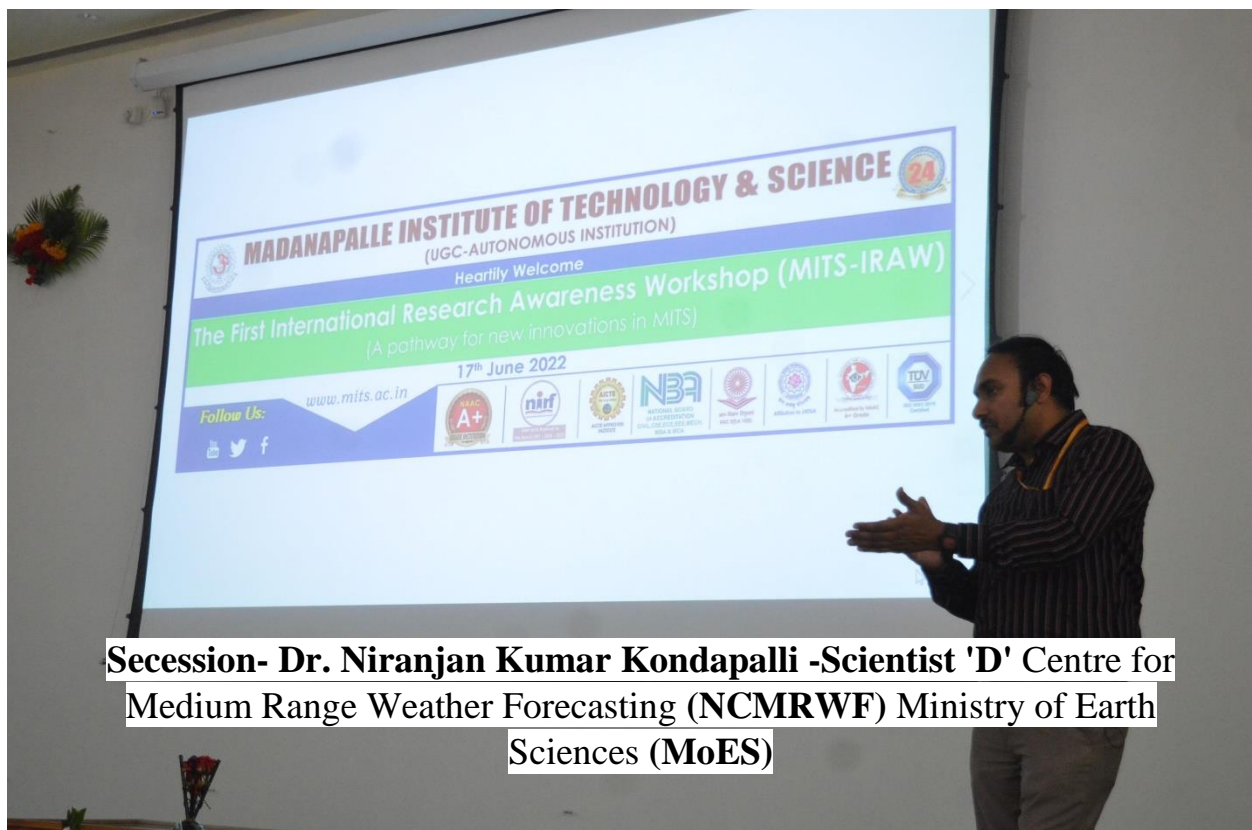
-Seession- Prof. Priyadarshanam and Dr. Harsha Simha M. S-(IIST)

Interaction with Prof. Priyadarshanam and Dr. Harsha Simha M. S(IIST)



Seccesion- Dr Raghavendra Ashrit, Scientist- F National Centre for Medium Range Weather Forecasting (NCMRWF)(MoES)





Felicitation Ceremony- Dr. Harsha Simha M. S (IIST)



Felicitation Ceremony-Dr Raghavendra Ashrit, (MoES)



Felicitation Ceremony- Dr. Venkat Ratnam (NARL)



Felicitation Ceremony- Dr. Priyadarshanam (IIST)



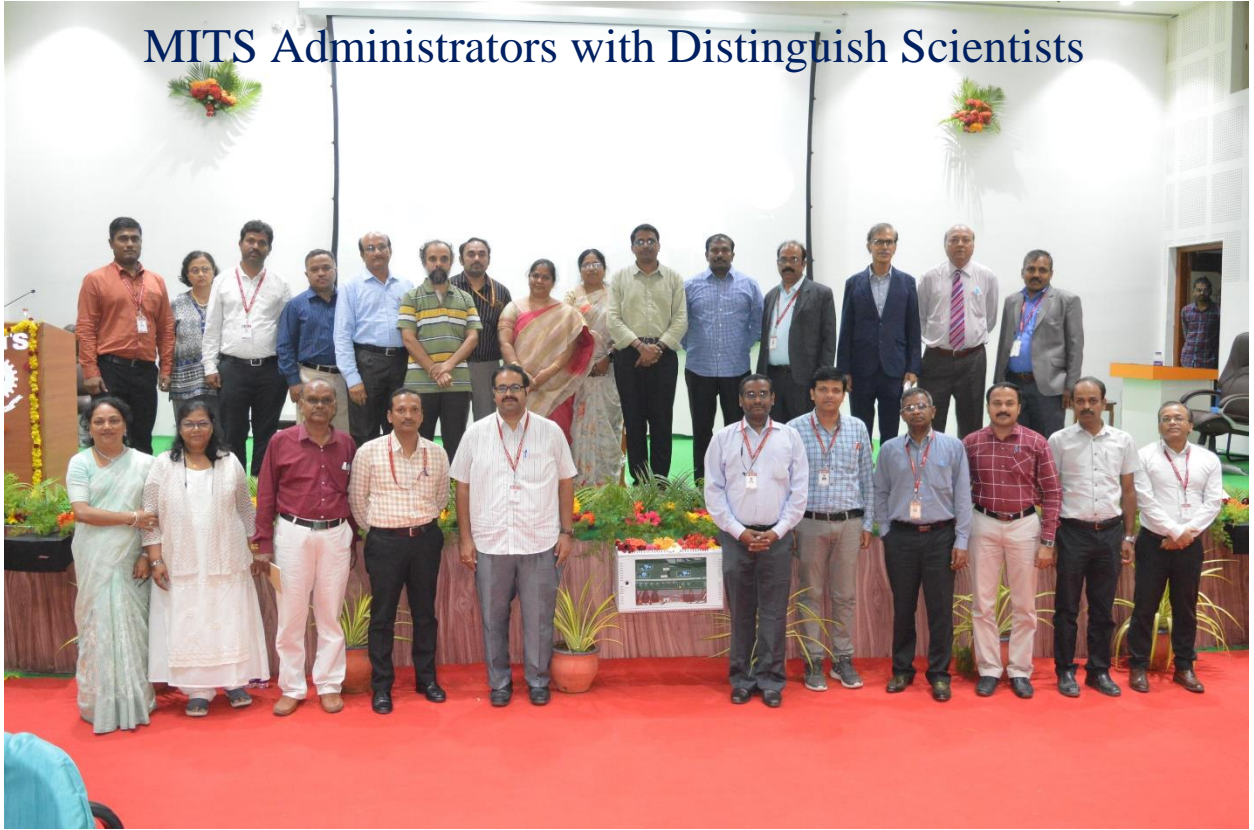
Felicitation Ceremony- Dr. Niranjan Kumar Kondapalli (MoES)



Felicitation Ceremony- Prof. Eswar Sunkara, Pusan National University- Korea



MITS Administrators with Distinguish Scientists



BoG Member Sri P G Ravi Kumar with Scientists'



Day : 3



Day 3- Welcome note by the Principal in the Auditorium



Motivation Seccesion for the Students



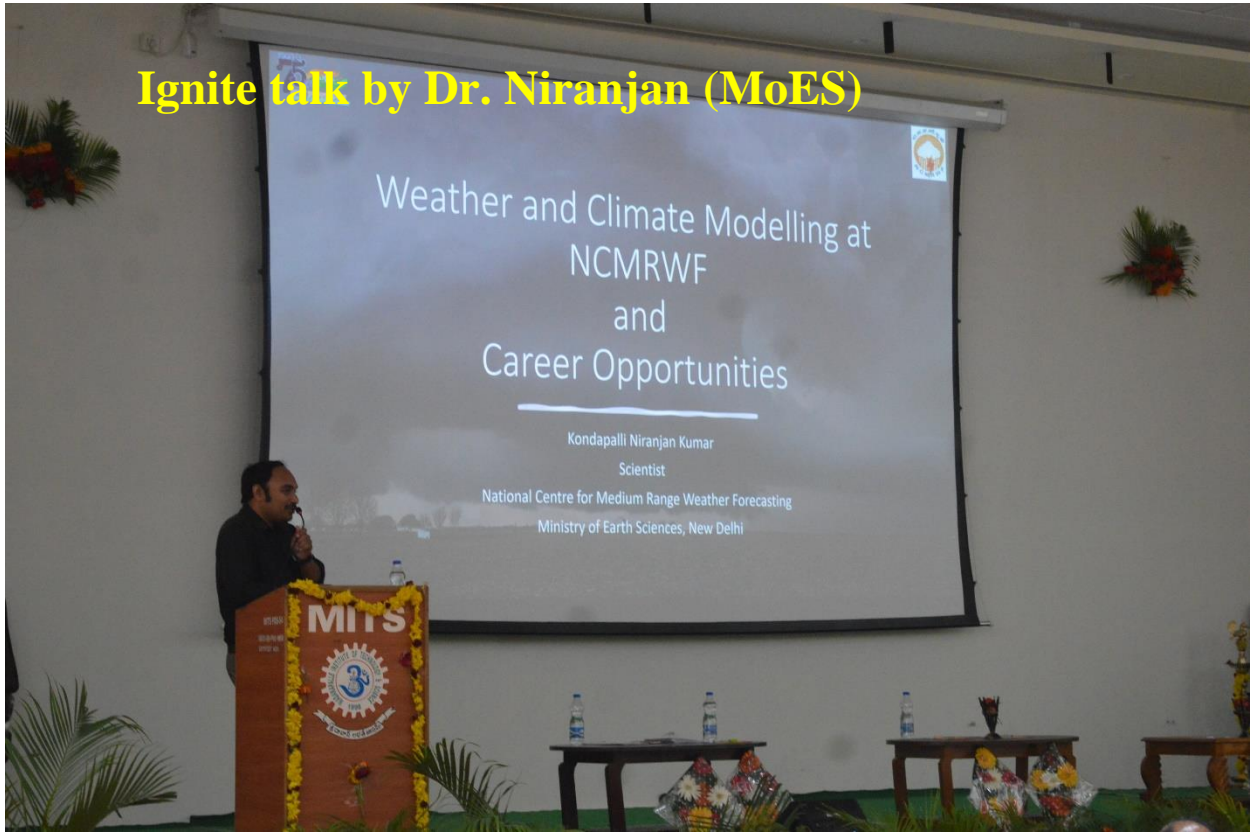
Ignite talk by Cr. Venkata Ratham (NARL)



Ignite talk by Cr. Venkata Ratham (NARL)



Ignite talk by Dr. Niranjan (MoES)



Ignite talk by Prof. Priyadarshanam(IIST)



Vote of thanks- IRO Coordinator

