

## A Report from Indian Meteorological Society and its Local Chapters

### 1. INTROMET – 2017

The International Tropical Meteorology Symposium (INTROMET-2017) was organized by the Indian Meteorological Society, Ahmedabad Chapter and Space Applications Centre (SAC), Indian Space Research Organization (ISRO) at SAC campus in Ahmedabad. The symposium which lasted for four days from November 7<sup>th</sup> to 10<sup>th</sup>, 2017, was inaugurated on 7<sup>th</sup> November at the New Auditorium of SAC in the august presence of the Chief Guest, Shri A.S. Kiran Kumar, Chairman, ISRO & Secretary, DOS, GoI and the Guest of Honour, Dr. M. Rajeevan, Secretary, MoES, GoI. The inaugural function was attended by many of the distinguished invitees including Dr. K.J. Ramesh, DG, IMD, AVM Dr. Ajit Tyagi (IMS President), Shri O.P.N. Calla (Director, ICRS), Dr. George Joseph (Ex-Director, SAC), Dr. R. Krishnan (IITM) and Prof. Sulochna Gadgil (Emeritus Prof., IISc). INTROMET-2017 got its international flavour with the participation of about 25 foreign delegates which include eminent meteorologist Prof. T.N. Krishnamurti, Dr. Ramesh R. Kakar (Program Scientist at NASA-HQ), Dr. Mark Bourassa, Dr. Ad Stofflen, Prof. Guosheng Liu, Dr. Upendra N Singh (NASA Technical Fellow), Dr. Z Haddad, Dr. Svetla Hristova Veleva and several other dignitaries. The symposium also attracted a huge gathering of over 500 national delegates including practicing meteorologists, academia, researchers and students, coming from across the country. Members of the industry sponsored and showed keen interests in utilizing the forum to their benefit. Deliberations during the four days brought out the specific observational needs of the meteorological community across the globe which can be translated to design and development of meaningful satellite payloads for critical applications.

Following Fellowships and Awards of IMS were presented in the inaugural session.

### Honorary IMS Fellows

Prof Petteri Taalas, Secretary General, WMO and Dr. Ramesh R. Kakar, Project Director, NASA were bestowed with Honorary Fellowships of the Society for the year 2016.

### IMS Fellows (2016)

The following were conferred with IMS Fellowships:

Dr. K. J. Ramesh  
Dr. V. K. Dadhwal  
Prof G. S. Bhat  
Dr. Rupa Kumar Kolli  
Dr. R. Krishanan

### Sir Gilbert Walker Gold Medal (2015-16)

was awarded to:

Prof. (Mrs.) Sulochana Gadgil

### IMS Young Scientist Award (2016)

for the best research paper was award to:

Ms. Rohini P.

### IMS Biennial Awards (2015-16)

Following were other awards:

IMS award for best paper published on Monsoon Research (Formerly B.N. Desai Award) to:

Sh. O. P. Sreejith

IMS award for best paper published on Atmospheric Observations and Technologies (J. Das Gupta Award) to *Smt. Amita Prabhu*

IMS award for best paper published on Weather and Climate Services (Formerly Bhavanarayana Award) to *Dr. Abhilash S.*

IMS award for best paper published on Application of Satellite data and Remote Sensing in Meteorology (Formerly P Krishna Rao Award) to *Dr. Satya Prakash Ojha and Ms. M.N. Kulkarni .*

IMS award for best paper published on Modelling study on Atmospheric and Oceanic Sciences (Formerly A. D. Vernekar Award) to *Ms. Swapna P.*

## Technical Sessions

The symposium was based on the theme of “Advances in Space-based Earth Observations and Services for Weather and Climate”, comprised of four plenary sessions with a total of 12 talks by distinguished speakers. An overview of Indian Earth Science Program by Dr. M. Rajeevan, Monsoon tele-connection with Arctic Ice Melt by Emeritus Prof. T.N. Krishnamurti and Shri D.R. Sikka Memorial Lecture by Prof. Sulochna Gadgil were the attractions of the symposium. A special lecture by Dr. Ramesh R. Kakar was delivered on “The NASA Airborne Convective Processes Experiment (CPEX)”.

The symposium presentations were organized into several parallel technical sessions under the following themes: Advances in monsoon studies, weather forecasting, hydrometeorology, air-sea interactions, cloud and precipitation, atmospheric process studies, meteorological data archival and dissemination, extreme events monitoring and forecasting, tropical cyclones, climate change, emerging trends in retrieval of geophysical parameters, air quality, agro-meteorology, ocean studies, aerosol-cloud interaction and special sessions on SCATSAT-1 and INSAT-3D/3DR. Young researchers from as far as Jammu and Kashmir to Nagaland participated enthusiastically. A dedicated session was conducted for undergraduate students specially selected by IMS local chapters and sponsored by IMS to attend and present in the symposium.

## Side Events

Three important side events took place on second day of the INTROMET. These included IMS General Body meeting, Felicitation of Organising Committee of the first TROPMET held in 1992 at Ahmedabad and release of latest issue of Vayu Mandal (Vol 43 No. 1).

The concluding session of the symposium was chaired by Director, SAC in a panel discussion involving eminent delegates on the theme of extreme events, observations, modelling and dissemination. There was unanimous agreement on the need to spruce up the communication system for disaster information dissemination to the last mile in a



Group photo INTROMET – 2017 at SAC, Ahmedabad

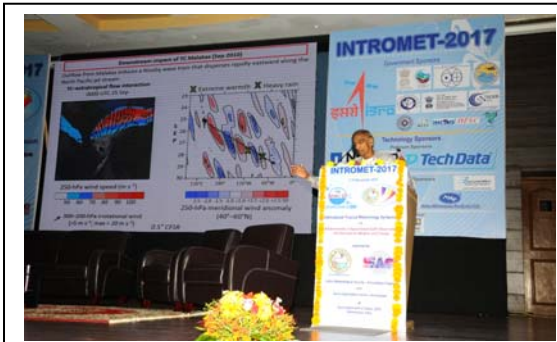


Dignitaries releasing the souvenir



Chief Guest Shri A.S. Kiran Kumar, Chairman, ISRO and Secretary, DOS, GoI lighting up the Lamp during the inaugural function

user-friendly language and dialects for better actionable strategies on the ground. Awards were distributed for best papers in students and young scientist categories. Students nominated by IMS local chapters were also awarded. The symposium concluded with an announcement about carrying the message forward to the next TROPMET to be held in 2018 at BHU, Varanasi. A huge appreciation was conveyed from all the participants to the INTROMET-2017 organising committee for making the event a grand success.



Emeritus Prof. T.N. Krishnamurti, Florida State University, USA delivering a plenary talk



Conferring IMS Fellowship to Dr. K.J. Ramesh



Guest of Honour Dr. M. Rajeevan, Secretary, MoES, GoI delivering a plenary talk



Release of Vayu Mandal



Dr. D. Ram Rajak, Organising Secretary, INTROMET-2017 proposing a Vote of Thanks during the inaugural function



Presentation of Sir Gilbert Walker Gold Medal to Prof. Sulochana Gadgil by AVM (Dr.) Ajit Tyagi, President, IMS





Felicitation of Chairman Dr. O.P.N. Calla and members of the Organising Committee of First TROPMET 1992 held at SAC, Ahmedabad

## 2. South Asian Workshop on Strengthening Early Warning for Disaster Risk Reduction in Himalayan Agriculture”

UNESOCO, IMS and IMD organised the ‘South Asian Workshop on Strengthening Early Warnings for Disaster Risk Reduction in Himalayan Agriculture’ at CSK Himamchal Pradesh Krishi Vishvavidyalaya, Palampur, HP. The workshop was inaugurated by Honourable Vice Chancellor, CSK Himamchal Pradesh Krishi Vishvavidyalaya, Palampur on 25<sup>th</sup> October, 2017.

About 52 participants from India, Nepal, Sri Lanka and Bhutan participated in this workshop. About 20 scientific presentations were made by the experts from the above countries.



## 3. Report from Delhi Chapter

IMS Delhi Chapter jointly with Regional Meteorological Centre, New Delhi and Earthwarch Institute Gurugram organized Ozone Sonde Demonstration and Met Quiz competition on 25<sup>th</sup> November 2017 at ‘Vrishti Auditorium, Mausam Bhawan, New Delhi. The event received overwhelming response from 30 schools in Delhi Capital region. Inaugural Session was attended by AVM (Dr) Ajit Tyagi, President, IMS, Dr. Devendra Pradhan, Chairman IMS, Delhi Chapter, Shri Raghu Saxena, CEO Earthwatch Institute, Shri Anand Sharma, Secretary IMS and Dr. D.R. Pattanaik, Treasurer, IMS and Dr. Pranab

Patar. Panelists highlighted success of Montreal Protocol in controlling use of CFCs and impressed upon the need to have awareness about preserving stratospheric ozone.



Shri M. Sateesh, Scientist from Indian Meteorological Department (IMD) showed Ozone monitoring demonstration to the teachers and students using ozone measurement instruments for high altitude balloons. The balloon goes to altitude of about 35 km.



Dr. Pranab Patar conducted Met Quiz. All 30 school students participated in the first round of written quiz competition, out of which six schools were selected for five rounds of live Q & A sessions. Top three teams were given prizes.



#### 4. Report from Guwahati Chapter

IMS Guwahati Chapter celebrated World Ozone Day at Rajdharbora School, Azara and Kendriya Vidyalaya, Borjhar on 16<sup>th</sup> and 22<sup>nd</sup> Sep'2017 respectively. In this connection, talks were arranged to describe objectives and importance of World Ozone Day and sharing knowledge regarding ozone hole, atmospheric ozone contents and related topics. Drawing and speech competitions among school children were organized at both the schools. Certificates and cash prizes were distributed amongst the top three participants.







### 5. Report from Jodhpur Chapter

Jodhpur Chapter of IMS has celebrated World Meteorological Day on the theme "Understanding Clouds", 2017 at International Centre for Radio Science, Jodhpur. 10 Teachers and 150 students from four schools participated in WM Day activities held on 30<sup>th</sup> August, 14<sup>th</sup> September, 25<sup>th</sup> November and 30<sup>th</sup> November 2017.

Lecture on the above theme was given by Prof. OPN Calla, followed by video films related to Understanding of Clouds. and Types of Clouds. Activities such as "Painting, Essay Writing, Debate and Quiz competition related to video" were conducted. First three students in each category were awarded prizes.





## 6. Report from Raipur Chapter

Meteorological Society of India, Raipur Chapter in association with Bhilai Institute of Technology (BIT), Raipur had organized an event to mark the significance of ozone layer on “World Ozone Day 2017” on September 16. Meteorological Centre Director Dr. Prakash Khare inaugurated the function by lighting up the lamp. In his lecture to the eminent guests, Indira Gandhi University of Agriculture Head of Meteorological Department Dr. G. K. Das termed Ozone gas as the blessing for earth, which stops the hazardous ultraviolet rays from passing the stratosphere of the atmosphere, thereby, facilitating the life on earth. Chlorofluorocarbon generated by air conditioning systems is extremely hazardous to the Ozone layer. Hence, it’s a global need to reduce the generation of this gas.

Presiding over the event Dr. Prakash Khare had appealed people to make efforts for the protection of ozone as well as the atmosphere.

The speech of Chief Orator, BIT Principal and Society Secretary Dr. Piyush Kant Pandey was profuse with detailed information about the ozone layer. He stated about the various layers of atmosphere such as Troposphere, Stratosphere, Mesosphere and Thermosphere, process of its formation, increase temperature owing to its availability, process of breaking down ozone layer by Chlorofluorocarbon, thickness of ozone layers at different regions of the atmosphere, ozone hole over poles and depiction of stratosphere cloud, skin cancer caused by ultraviolet rays and other diseases.

A poster competition was also organized on this day which caught the attention of everyone. Winners of the poster competition were awarded prizes by the Chief Guest.

Programme concluded with a vote of thanks proposed by Senior Agriculture Scientist Dr. J.L. Choudhary.

**भारतीय मौसम सोसायटी रायपुर शाखा द्वारा वक्त्र ओजोन दिवस 2017 आयोजित प्रेस सूचना दनांक 18.09.2017**

भारतीय मौसम सोसायटी रायपुर शाखा, मौसम केन्द्र, लालपुर, रायपुर (छ.ग.) द्वारा वक्त्र ओजोन दिवस 2017 आयोजित प्रेस सूचना दनांक 18.09.2017

गत 16 सप्तम्बर को भारतीय मौसम सोसायटी, रायपुर शाखा व सभलाई इंस्टीट्यूट आफ टेक्नालाजी रायपुर के सांयुक्त तत्वावधान में सक्त्र ओजोन ददवस सभलाई इंस्टीट्यूट आफ टेक्नालाजी (बी आई टी ) रायपुर में मनाया गया । काययक्रम का शुभारम्भ मुख्य असतसथ तथा मौसम सवज्ञान केन्द्र के सनदशेक डा प्रकाश खरे द्वारा दीप प्रज्वलन के साथ दकया ।

इस अवसर पर अपने व्याख्यान में सोसायटी के वररष्ठ सदस्य तथा इं. कृ. सव सव के कृषक मौसम सवभाग के प्रमुख डा. जी के दास ने बताया दक ओजोन गैस पृथ्वी के जीवधाररर्यों के सलये वरदान स्वरूप ह ै जो सूयय दकरण के साथ आने वाली हासनकारक अल्ट्रावायलेट दकरणों को स्नेटोसस्फयर में ही रोककर पृथ्वी पर जीवन को सुगम बनाती ह ै। इस ओजोन पतय में कमी लाने वाली गैसों में क्लोरो फ्लोरो काबयन अत्यसधक कुप्रभावशाली होती ह ै जो वायु प्रशीतन उपकरणों से सनगयसमत होती ह ै। इसमें कमी लाया जाना एक सावयभौसमक आवश्यकता ह ै।

इसके साथ ही अपने अध्यक्षीय व्याख्यान के तहत डा प्रकाश खरे ने पयायवणीय समुदाय व व्यापाररक जगत ससहत आम जनता से अपील करते हुए कहा दक ओजोन पतय के साथ ही वायुमांडल के बचाव के सलये सभी साथयक प्रयास दकया जाये ।

कायक्रयम का मुख्य व्याख्यान बी आई टी के प्राचायय तथा सोसायटी के ससचव डा सपयषुकांत पाडांये का ओजोन पतय से सम्बसन्द्धत सवस्तृत जानकारी युक्त रहा । अपने इंटरसेक्त्व व ज्ञानवधयक व्याख्यान में डा पाांडये द्वारा वायुमांडल के सवसभन्न भागों रोपोसस्फयर, स्नेटोसस्फयर, समसोसस्फयर व थमोसस्फयर में से स्नेटोसस्फयर में ओजोन गैस की 300 पीपीबी पतय में उपलब्धता, इसकी बनने की प्रदक्रया, उपलब्धता के कारण उस स्तर पर तापमान में होने वाली वृसि, हासनकारक गैस क्लोरो फ्लोरो काबयन से ओजोन की

असभदक्रया से ओजोन बन्ध के टूटने की सवसध, वायुमंडल के सवसभन्न क्षेत्रों में ओजोन पतय की सभन्न-सभन्न मोटाई, ध्रुवीय क्षेत्रों में ओजोन होल व सेटोसस्फयर बादल (नाक्टिल्युसेंट बादल) का ससचत्र वणयन के साथ ही अल्ट्रावायलेट दकरणों से होने वाली सस्कन कैंसर व अन्ध बीमाररयों की ससवस्तार व महत्वपूणय जानकारी दी गई।

कायक्रयम के मुख्य आकषयण में बी आई टी रायपुर में छात्र-छात्राओं के बीच आयोजित ओजोन सम्बन्धी पोस्टर प्रसतयोसगता का आयोजन रहा तथा इसके सवजेताओं को मुख्य असतसथ द्वारा पुरस्कार ददया गया। इस

प्रसतयोसगता में सभन्न सभन्न पोस्टर प्रस्तुत दकये गये। अंत में सोसायटी के सांयुक्त ससचव व डॉ. गा. कृ. सव. सव. के वररष्ठ कृसष मौसम सवज्ञानी डा. जे. एल. चौधरी के धन्धवाद ज्ञापन के साथ काययक्रम का समापन दकया गया।

ज्ञातव्य है कि वायुमंडलीय ओजोन पतय में कमी के कारण सूर्य से आपसतत अल्ट्रावायलेट दकरणों के कुप्रभाव से वायुमंडल के बचाव के अंतरराष्ट्रीय प्रयासों के तहत वायुमंडलीय ओजोन पतय की मोटाई में कमी लाने वाली गैसों हाइड्रोफ्लोरोकार्बन व क्लोरोफ्लोरोकार्बन की उत्पादन में कमी दकये जाने हतु 16 ससतम्बर 1987 में 25 सवसभन्न देशों द्वारा हस्ताक्षरत मॉररयल प्रोटोकाल के उपलक्ष्य में प्रसतवषय 16 ससतम्बर को वैसश्वक पयायवरण सवज्ञान समुदाय द्वारा सवश्व ओजोन ददवस मनाया जाता है। इसकी 30 वषय की पूणयता के उपलक्ष्य में सवश्व ओजोन ससचवालय तथा सवसभन्न देशों द्वारा मॉररयल प्रोटोकाल को सम्बल प्रदान दकये जाने हतु एक असभयान चलाया जायेगा सजसे उनके वेबसाईट [www.ozoneheroes.org](http://www.ozoneheroes.org) पर दखे जा सकेगा।

## 7. Report from Varanasi Chapter

The World Ozone day was celebrated 16<sup>th</sup> September, 2017 at the Department of Geophysics, BHU. The event was attended by the students of class 6th to class 12th from eleven government schools from U.P. Board as well as Central Board. The major aim of the event was to equip the students with the knowledge of weather as science and also about the role of Ozone.

The event was organized in three categories, Junior (one each from class 6 to 8), Middle (one each from class 9 to 10) and Senior (two students from Class 11 and/or 12). For the Junior and Middle Groups, essay competition was held on the topic related to Environment and Ozone. However, for Senior Group, the Quiz Competition was organized amongst the participant schools. Winners of various competitions were felicitated by the Chairman of the IMS, Varanasi Chapter.

The Chairman of IMS, Varanasi Chapter honored the winners of various competitions at the end of the event.