#### Second Circular and Call for Abstracts

# National Metrology Conclave and 6<sup>th</sup> National Conference on "Advances in Metrology"

AdMet - 2020

(January 04 - 06, 2020)

#### Venue

CSIR — National Physical Laboratory Dr. K.S. Krishnan Marg, New Delhi-110012, India







Jointly Organized by

**CSIR – National Physical Laboratory** 

(www.nplindia.org)

and

**Metrology Society of India (MSI)** 

(www.metrologyindia.org)

#### NATIONAL ADVISORY COMMITTEE

Dr. Shekhar C. Mande

DG, CSIR, New Delhi

Dr. D.K. Aswal

Director, CSIR-NPL, New Delhi

Dr. S.K. Joshi

Ex-DG, CSIR, India &

Ex-Director, CSIR-NPL, India

Prof. Ashutosh Sharma

Secretary, DST, India

Dr. K. Sivan

Chairman, ISRO & Secretary, DOS, India Dr. R. P. Pant

Mr. S. P. Singh Parihar

Chairman, CPCB, New Delhi

Dr. R.P. Singh

Secretary General, QCI, India

Prof. Krishan Lal

Ex-President, INSA &

Ex-Director, CSIR-NPL, India

Prof. Vikram Kumar

Prof. IIT, Delhi &

Ex-Director, CSIR-NPL, India

Dr. A. Sen Gupta

Prof., Northcap University &

Ex-Acting Director, CSIR-NPL,

New Delhi

Prof. A.K. Grover

Ex-VC, Punjab University &

Chairman RC, CSIR-NPL, New Delhi

Mr. Shashi Shanker

Chairman & Managing Director,

ONGC, New Delhi

Shri Pramod Kumar Tiwari

DG, BIS, New Delhi

Prof. R. K. Sinha

Director, CSIR-CSIO, Chandigarh

Mr. N. Venkateswaran

CEO, NABL, Gurugram

**PATRON** 

Dr. D.K. Aswal

Director, CSIR-NPL, New Delhi

CONVENER

Dr. S.S.K. Titus

CSIR-NPL, New Delhi

Dr. Nagahanumaiah

Director, CMTI, Bangalore

Dr. S. V. Rasal

Managing Director, IDEMI, Mumbai Dr. A. K. Panda

Dr. Raniana Mehrotra

Vice-President, MSI, New Delhi

Dr. N. Thanu

DG, NTH, Kolkata

Mr. V. Nagendran

Chairman, Nagman Instruments

CSIR-NPL, New Delhi

Dr. Sanjay Yadav

CSIR-NPL, New Delhi

Dr. S. S. K. Titus

CSIR-NPL, New Delhi

Dr. K. P. Chaudhary

Director, MSIT, New Delhi

Prof. Ravinder Agarwal

Thapar University, Patiala

Dr. Y. P. Singh

FARE Labs Pvt. Ltd., Gurugram

Dr. J. S. Sharma

President, IAAPC, Delhi

Dr. S. D. Attri

Dy. DG, IMD, New Delhi

Dr. D.S. Tiwari

AoL, New Delhi

Mr. P. K. Aggarwal

TAFE, Chennai

Dr. Naresh Kumar

Director, SASE, DRDO, Chandigarh

Dr. B. N. Dixit

Legal Metrology Department, Delhi

Prof. K. S. Nagla

NIT, Jallandhar

Prof. R. C. Budhani

Professor of Physics

Secretary, SME & MSME, New Delhi

Morgan State University, USA

Shri P. K. Aggarwal

CEO, FASSAI, Delhi

Prof. Chandra Shekher

Chancellor, AcSIR, New Delhi

Dr. V. N. Ojha

Ex-Chief Scientist, CSIR-NPL, New Delhi

Dr. Harish Kumar

NIT, Delhi

**Prof. Abid Halim** 

Jamia Millia Islamia, Delhi

Prof. Ramgopal Rao

Director, IIT, New Delhi

Dr. B. S. Negi

Min. of New & Renewable Energy

New Delhi

Dr. M. S. Kulkarni

BARC, Mumbai

Mr. Gurjit Singh

DGM, Endress + Hauser (India) Pvt. Ltd.,

Mumbai

Mr. Suneel Kapoor

All Measure Tech. Pvt. Ltd., Ahmedabad

Mr. Harish Bajaj

Mitutoyo South Asia Pvt. Ltd., Delhi

Mr. Satyajit Nath

Fluke Technologies Pvt. Ltd., New Delhi

Mr. Gaurav Jain

Yantrika Instruments, Gurugram, Haryana

Dr. Manjit Singh

Director, TBRL, DRDO, Chandigarh

Dr. E. D. Park

MD, Seela Infratech, Delhi

CONFERENCE CHAIR

Dr. R. P. Pant

CSIR-NPL, New Delhi

CO-CONVENER

Dr. S. K. Jaiswal

CSIR-NPL, New Delhi

CO-CHAIR

Dr. Sanjay Yadav

CSIR-NPL, New Delhi

#### LOCAL ORGANIZING COMMITTEE

Dr. D. K. Aswal
Dr. R. P. Pant
Dr. S. K. Jaiswal
Mr. C. M. S. Rauthan
Mr. J. C. Biswas
Dr. Rina Sharma
Dr. Anurag Gupta
Dr. H. K. Singh
Mr. M. A. Ansari
Dr. Suraj Khanna
Mr. Goutam Mandal
Dr. S. P. Singh
Dr. D. D. Shivagan

Dr. Sanjay Yadav
Dr. S. S. K. Titus
Dr. C. Sharma
Dr. Mahavir Singh
Dr. Nita Dilawar
Dr. Ritu Srivastava
Dr. V. P. S. Awana
Dr. Ashish Agarwal
Dr. Saood Ahmad
Dr. Sanjay Srivastava
Dr. Ashok Kumar
Dr. Satish

etrology plays a vital role for the development of technology, industries, quality products, economy, trade and sustainable society. The recent advancement in various fields such as precision engineering, nano-science, communication methods, Internet of Things (IoTs), cyber security system, environmental engineering, healthcare & safety, clean energy generation, etc. have put pressing demands on "National Metrology Institutes (NMIs)" for the realization of the standards of physical and chemical measurements with highest level of accuracies and traceability to the International System (SI) of units. Also, the recent implementation of the redefinition of SI units based on the fundamental constants has brought a great challenge to the metrologist for establishing the required systems for realization these units accordingly.

A National Metrology Conclave will be organized on the 4<sup>th</sup> January 2020, which is to commemorate the Foundation Day of CSIR-NPL, with an idea to strengthen the role of precision measurements in various segments which has a direct implication in the economic growth of the country. This conclave would mainly focus on deliberations from delegates having different expertise to cover wide spectrum of metrology, which include establishment & development of Primary Standards, Quality Systems & Standardization, Accreditation & Conformity Assessment, Regulations & Legal Metrology, Education & Awareness, etc. This conclave would also enable us to face the challenges in the global scenario and improve the accuracies in the Apex level measurements.

The national conference on "Advance in Metrology (AdMet)" is a scientific event organized by Metrology Society of India (MSI) annually. The main objective of AdMet series is to provide a healthy platform for metrologists, technocrats, researchers and students of various NMI's, laboratories & institutions to participate and share their knowledge & experience, identify thrust R&D areas and foster collaborations with the fellow scientists from all over the world in the topics depicted below. AdMet-2020 will also feature an exhibition where latest metrological equipments, measurement systems and related accessories will be displayed for the benefits of the researchers which would provide an excellent opportunity for the manufactures and service providers to showcase their products & services to build better customer relations. The organizing committee invites all the concerned researchers, metrologists, academicians, policy makers and exhibitors to submit their work for presentation and proposals for other conference related activities.

A one day Post-AdMet workshop is also scheduled to be organized jointly with IAAPC (Indian Association for Air Pollution Control) on January 7, 2020 on "Criteria For Appropriate Devices Used For The Measurement of Air Quality in India". Further details are given in this circular.

The AdMet-2020 will be organized in Delhi, the capital city of India, a modern metropolis famous for its historical monuments, architectural grandeur has a rich culture that enchants and fascinates people of all religions and nationalities. The weather condition in Delhi during the proposed dates of AdMet-2020 would be very child (min temperature may go down to 4°C). However, during day time, sunlight makes the days warmr and pleasant, and we are sure that delegates, will enjoy sightseeing in such weather.

#### DATE AND VENUE

The conference is scheduled from January 04, 2020 and the AdMet conference is scheduled from January 05-06, 2020 on frontier areas of metrology & quality system. A Post AdMet Workshop is also schedule on January 07, 2020. The venue is CSIR-National Physical Laboratory, Dr. K. S. Krishnan Marg, New Delhi, India.

#### SCOPE

#### The following topics will be covered in AdMet-2020:

- Frontiers in Metrology
- Mass and Related Parameters
- Length, Dimension and Nano-metrology
- Photometry and Radiometry.
- Temperature and Humidity Metrology
- Acoustics, Ultrasound and Vibration
- Time and Frequency Metrology
- Quantum, Electrical & Electronics Metrology
- Metrology in Chemistry, Certified Reference Materials / Bhartiya Nirdeshak Dravay (BND)
- Traceability in Measurements
- Scientific, Industrial and Legal Metrology
- Quality System and Accreditation
- Key Comparison and Proficiency Testing
- Environmental / Gas Metrology
- Healthcare and Bio-Medical Metrology
- Materials Metrology
- Ionization Radiation Metrology
- Metrology for Non-Conventional/ Alternative Energy Source

This conference includes invited talks by eminent personalities known internationally in addition to contributory papers for both oral and poster presentations. Admet-2020 invites original contributed papers from scientists, researchers, metrologists, academicians, technologists, engineers, students, industrial personals on the aforesaid topics for presentation in the conference. For further details of technical programme, please visit conference website www.admetindia.org

#### **GUIDELINES FOR ABSTRACT SUBMISSION**

One page (A4 size, typed in Times New Roman) abstracts is invited from the participants. Abstract should include: title (14 size, bold), one space, authors name (12 size, \* on the name of corresponding author), one space, affiliation (12 size, italics), email of corresponding author in small bracket, e.g. (\*e-mail for correspondance:---@----,---), two space, text of the abstracts (12 size) one space, Acknowledgements (this "Acknowledgements" should be italics but texts are normal in 12 size).

Authors are requested to strictly follow the guidelines:

- 1. The work described in abstract should be original, and should have not been submitted or published elsewhere.
- 2. Abstract should talk about "Measurement Science" topics as mentioned in the "Scope".
- 3. Abstract should talk with data and novel results, it should not just like a concept note of planning of the work.
- 4. For consideration of the abstract for publication in "Abstract Book", it is mandatory that at least one of the authors has to be registered for the conference.

For submission of the abstract and any updates, please visit conference website (please submit abstract in above format and with a subject "abstract for AdMet-2020" to: convener@admetindia.org)

Deadline for submission : December 10, 2019 Notification of acceptance : December 25, 2019

#### TECHNICAL EXHIBITION

There will be an exhibition during the conference. The technical exhibition includes state of art in metrology, nanotechnology and conference related instruments and system, etc. This exhibition will provide an opportunity for the industries to exhibit their products to the scientific and metrology community.

Each stall will be of 3m × 3m size with required lighting and furniture facilities. The exhibition will have maximum of 20 stalls which will be allotted on first come first serve basis.

#### STALL CHARGES (GST Extra)

Discounted upto 25<sup>th</sup> December, 2019 - Rs. 50,000/-

#### Note:

- 1. Each stall will be of 3 m × 3 m size (above charges are for each stall with 2 delegate's registration fee).
- 2. Security will be provided through CCTV camera and guards in the exhibition sight at night.
- 3. Two chairs, one table and one electricity connection with one extension board will be provided.
- 4. The list of the sponsors, exhibitors and advertisers will be displayed on AdMet-2020 and MSI websites for one year.

#### SPONSORSHIP (GST Extra)

Platinum Sponsor	₹ 2,00,000/-	2 Exhibiton Stalls	4 Delegate Registration	2 pages (colour) full / 1 page (colour) full and 2 pages full (B & W) advertisement
Diamond Sponsor	₹ 1,50,000/-	2 Exhibition Stalls	3 Delegate Registration	1 Page (colour) full / 1 & ½ pages (B & W) advertisement
Gold Sponsor	₹ 1,00,000/-	1 Exhibition Stall	2 Delegate Registration	½ pages (colour) / 1 page (B & W) advertisement
Silver Sponsor	₹ 80,000/-	1 Exhibition Stall	2 Delegate Registration	1 page (B & W) advertisement
Delegate Kit Sponsor	₹ 1,00,000/-	Sponsor logo will be printed on delegate kit	2 Delegate Registration	1 page (B & W) advertisement
Lunch/Dinner Sponsor	₹ 60,000/-	Sponsor logo will be displayed at the lunch/dinner venue	2 Delegate Registration	½ page (B & W) advertisement
Lunch/Dinner Co-Sponsor	₹ 30,000/-	Sponsor logo will be displayed at the lunch / dinner venue	2 Delegate Registration	½ page (B & W) advertisement
Tea Sponsor	₹ 20,000/-	Sponsor logo will be displayed at the venue	2 Delegate Registration	

#### ADVERTISEMENT IN SOUVENIR (GST Extra)

Souvenir consists of highlights of technical programme, delegates list and abstracts along with advertisements. It provides a golden opportunity for industries and others to advertise their products and services for the future business.

Adv. Place in Souvenir	Nature of Print	Amount
Back Page	Colour	₹ 50,000
Inside Page (Front)	Colour	₹ 40,000
Inside Page (Back)	Colour	₹ 35,000
Inside Page (Full)	Colour	₹ 30,000
Inside Page (Half)	Colour	₹ 20,000
Inside Page (Full)	Black & White	₹ 15,000
Inside Page (Half)	Black & White	₹ 10,000

#### REGISTRATION

#### (in Indian Rupees including GST)

	Category	AdMet-2020
Indian Delegate (in Rs.)	Non-MSI Members	₹ 8000
	MSI Members	₹ 5000
	Student	₹ 3000
Foreigh Delegates (USD)		\$ 350

#### LANGUAGE OF CONFERENCE

The Language of conference will be English.

#### TRAVEL AND ACCOMMODATION

Please contact the convener for any details/help.

#### **CONFERENCE PAYMENT**

Cheque/Demand Draft may be issued in favour of "ADMET 2020" payable at "New Delhi" or through Bank Transfer or NEFT in the account of "ADMET 2020" in Syndicate Bank as per detail below:

Bank name : Syndicate Bank
Branch : NPL Pusa, Delhi
Name of A/c : ADMET 2020
A/c No. : 91002010044842
IFSC Code : SYNB0009100

#### CONTACT

#### Dr. S. S. K. Titus

Convener, AdMet-2020

CSIR-National Physical Laboratory

Dr. K. S. Krishnan Marg New Delhi-110012, India

E-mail: titus@nplindia.org

convener@admetindia.org

Web.: www.admetindia.org
Tel: +91-11-45608680
Mob: +91-9910824686
Fax: +91-11-45609310

#### Dr. S.K. Jaiswal

Co-Convener, AdMet-2020

CSIR-National Physical Laboratory

Dr. K. S. Krishnan Marg New Delhi-110012, India

E-mail: skjaiswal@nplindia.org
Tel: +91-11-45609426

Mob : +91-8920102165 Fax : +91-11-45609310

# National Metrology Conclave and 6<sup>th</sup> National Conference on "Advances in Metrology" AdMet-2020

(January 04 - 06, 2020)

CSIR — National Physical Laboratory Dr. K.S. Krishnan Road, New Delhi-110012, India

#### **REGISTRATION FORM**

Name:	(BLOCK LETTERS)	
Designation:		
Mailing Address :		
Ph (O):	(R) :	
(Mob) :	Fax :	
E-Mail:		
Participation in : AdMet-2020		
Payment Details :		
(In favour of "ADMET 2020" payable at Delh	i)	
Registration Fee :		
DD/Cheque No. :	Drawn on	
Dated : Amou		
Payable at :		
Title of the paper :		
Paper relates to topic :		
Date :		Signature:

### Post-AdMet Workshop on "Criteria for Appropriate Devices used for the Measurement of Air Quality in India", January 07, 2020.

Because of rapid evolution of technology, new measurement concepts are emerging widely in air quality monitoring field. For example, in recent days, the sensor based measurements are widely talked about among the community. Similarly, other topics on which attention is much paid are optical technology where light absorption/emission and scattering are the key for the measurement, indirect frequency measurement based technologies, etc. Although they are not realising measurand quantity directly as primary methods do, but these techniques can provide on-line measurement data continuously, thus facilitate to make decision faster, convenient to use, and most importantly they are cost effective so enable the user to use them in cluster in closer proximity for better identifying the hot spots of air pollution. On the other hand, they have several limitations. For example, large uncertainty in measurement, narrow range of ambient parameters under which they can be used, limited application sites where they can deploy, etc. Other important gap for deploying these technologies is that they have no space in the regulatory standards and also in the compliance standards. Moreover if these technologies are adequate, a discussion on the need to revise the standards and also to form new protocol standards should be made. Also, as per the Indian need, a certification scheme for the technology approval and promotion is essentially required. Therefore, it is important that by looking at all these aspects and "fit for purpose" usage of these emerging and well established technologies, a brain storming workshop should be called for the in depth discussion on the topic.

A one day Post-AdMet workshop on above topic is scheduled to be organised jointly with IAAPC (www.iaapc.in), on January 07, 2020 at 2<sup>nd</sup> floor conference room, AML, CSIR-NPL. This is to better discuss and understand the current status of new technology developments at academia, experiences of technology development and commercialization by manufacturers, feedback from the stakeholders and end-users, and finally requirement of a criteria for appropriate technologies and reliable measurement of air quality from the measurement institute and regulatory body. The highlights and key points of the discussions and finding will be circulated to the concerned and will help to make a sound strategy on the use of an appropriate device technology for air quality monitoring purposes. Researcher, manufacturer, technologists, industrialists, staff remembers and students working at academia, industries, and regulatory bodies are welcome to join this workshop.

There is no registration fee for this workshop, however we welcome participation from industries and manufacturers with sponsorship as per the guidelines given in this circular. In this workshop, a separate session is planned for these industries/manufacturers to make presentation among the participants about their new technology and product. Because of scarcity of time, we will include 3-4 such presentations as first come first serve basis. All participants are requested to fill up the attached registration form and send back to the coordinator at aggarwalsg@nplindia.org (Dr. Shankar G. Aggarwal). We have limited seats for this workshop, therefore it is important to send your participant request as soon as possible. This will greatly help organisers to arrange the workshop in a better way.

## National Metrology Conclave and 6<sup>th</sup> National Conference on "Advances in Metrology"

#### AdMet-2020

CSIR — National Physical Laboratory Dr. K.S. Krishnan Road, New Delhi-110012, India

#### Registration for Post-AdMet Workshop, January 07, 2020

Name :
(BLOCK LETTERS)
Mailing Address :
Mailing Address :
E-Mail:
Mobile Phone :
Like to participation in panel discussion/just as an observer :
Like to participation in panel discussion/just as an observer :
If you are a company sponsoring a part of this workshop, would you like to make a presentation (Yes/No/NA):
The first are a company openioring a part of this womenep, we are you me to make a presentation (respire) in y
Title of the Presentation :
Name of the company with Address :
Name of the presenter :
Name:
Date: Signature:

Please send a scanned copy of this form to: aggarwalsg@nplindia.org, with a subject "Registration for Post-AdMet 2020" by December 20, 2020 (no request will further be accepted after this deadline).