To celebrate IEEE Day

IEEE EDS Delhi Chapter, India

&

Department of Electronic Science

University of Delhi South Campus, India

Jointly organize

Technical Talk

October 04 (Friday), 2024 || 03:00 PM - 04:00 PM || Venue: Room No. 115, Arts Faculty Building

Invited Speaker

Dr. V. N. Ojha

Ex. Chief Scientist

CSIR-National Physical Laboratory,

New Delhi, India

Title of Talk

Redefinition of International System of Units (SI): A perspective

The event is co-aligned with the IEEE day celebrations to mark the impact of Electrical and Electronic engineers worldwide for elevating socio economic set up.

Coordinated by:

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Abstract

In the present talk, we discuss, in brief, the journey from early measurement system to the International System of Units (SI) and further to the present redefined International System of Units (SI), implemented worldwide since May 20, 2019, a turning point for modern life to be possible. Further, we discuss about the definitions of these redefined International System of Units (SI) based on the fundamental constants; how they are realised world over in the National Measurement Institutes (NMI). The importance of these units in metrology (science of measurement and its applications), their dissemination to the various organisations (namely: government, non-government, academia, research and development, science and technology institute, industries etc) for quality research and innovations; product and processes and global trade.

About the speaker

Dr. Vijay Narain Ojha superannuated on September 30, 2018 as the senior most Chief Scientist of CSIR-National Physical Laboratory and Head, Time & Frequency and Electrical & Electronics Metrology Division, Head of Environmental Sciences and Biomedical Metrology Division, Professor, (Physical Sciences) in Academy of Scientific and Innovative Research (AcSIR). He was also former Head of Apex Level Standards and Industrial Metrology Division. Having completed his M.Sc. from Rajasthan University; M.Phil. and Ph.D in physics from the University of Delhi, Dr. Ojha has a very rich and thirty six years of vast experience. He has been a pillar in the establishment of India's Metrology programme at the CSIR- National Physical Laboratory, India (NPLI). His major contributions are accredited to of Time & Frequency (Indian Standard Time, IST), Electrical & Electronics, Physico-mechanical, Environmental, Biomedical metrology, Quantum metrology, Nanometrology and Industrial metrology. He has worked as PI on several projects of Government of India. He was the co-ordinator and also taught courses in "Advance Measurements Techniques and Metrology" to AcSIR's M. Tech. and Ph. D. students. He has also published several research articles, co-authored a book, awarded two US patents and applied for three Indian patents.

He was also instrumental in Transfer of Technology (ToT) on PM2.5 for pollu9on measurements. He is a recipient of APMP Award for developing NMI-2016. Citation: "Recognition of Your Outstanding Contributions to the Development of the Metrology in Your Economy". He is the 'First Indian and probably the second in the Asia Pacific Region' to receive this award since its incep9on in November 2010. He has received 'Life9me Achievement' - VIRA Interna9onal Award - 2017 of Venus Interna9onal founda9on for his outstanding contribu9on in 'PHYSICS and METROLOGY'. He received the pres9gious URSI Young Scien9st Award in 1993 at Kyoto, Japan. He also received Young Scien9st Award in Physical Sciences of CSIR, India in 1992bythenPresidentofIndia,honourableDr.Shankar Dayal Sharma ; for hiscontribu9on, "In the development of SQUID using high TC superconductors. He has also fabricated low TC Josephson series arrays towards new voltage standard". He received the 'Merit Scroll of A.N. Chaierji Memorial Award' of Indian Cryogenic Council for outstanding work of 1990 in "High Tc SQUID". A recipient of the DAAD Fellowship, he is also a Fellow of Metrology Society of India. Experts member of committees of ISO TC 229, Nanotechnology, APMP-TCEM, CCEM, TCTF, NABL and BIS. He has been the visi9ng scien9st/researcher at CSIRO, Sydney, Australia; ETL, Tsukuba, Japan; Fluke, Singapore; Fluke, Norwich, U.K.; NPL, U.K.; METAS, Webern, Switzerland; Guildline, Canada; NIMTI, Thailand; PTB, Germany and NIST, USA.