RESEARCH AND TRAINING UNIT FOR NAVIGATIONAL ELECTRONICS
OSMANIA UNIVERSITY - HYDERABAD

2-Day Symposium on
CURRENT RESEARCH TRENDS IN NAVIGATION SYSTEMS

Course Code: NERTU/SC/83
14-15, OCTOBER 2022

Venue : NERTU Auditorium, OU
(Can Join In-Person or Online)

Time : 09.00AM – 05.30PM

Keynote Speakers of the Symposium
Last Date for Registration: 09th October 2022
COORDINATOR, GNSS-22
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Interested Participants can fill the registration form at https://forms.gle/pLkqPDuTne3MVSwQ8
REGISTRATION FEE (Indian Rupees)

Category	Fee+18%GST=Total	
	Offline	Online
Students (Full Time)	2000+360=2360	1500+270=1770
Faculty	3000+540=3540	2000+360=2360
Scientists & Engineers from R&D, Industrty	5000+900=5900	3500+630=4130

Sponsorship: There is an opportunity for industries to present their products, services and technologies in the symposium to participants with a presentation of 15-minutes. Charges for sponsorship with a 15-minutes presentation or demo is Rs.50,000/- + 18% GST.

Introduction: GNSS has become a ubiquitous technology, including the sectors related to surveying, defence, unmanned vehicles, agriculture, timing & synchronization, aviation, road, rail and sea transport. GPS chips are also proposed to use in the Applications of Power Engineering, Internet of Things in the Industry and other organizations to know the location and time of events, sensors and devices. The global navigation satellite system market is projected to grow from $175.19 billion in 2021 to $320.73 billion in 2028 at a CAGR of 9.02% in forecast period. The business can be divided into development of GNSS chipsets and the integration of GNSS chipsets with different applications. This is the high time in India to develop GNSS chipsets and also applications with GNSS chipsets including NavIC/IRNSS.

2-Day Symposium on Trends in GNSS Research: It is an era of everybody speaking about Artificial Intelligence, Machine Learning and Autonomous Vehicles/Robots. The main aim of the symposium is to know the latest trends in the GNSS research and autonomous vehicles, covering the challenges and advantages of GNSS for different applications. This Symposium will cover mainly the keynote talks by the senior scientists/academicians/engineers working in this field, and few presentations by the PhD research scholars. The expected participants of this symposium are academicians, scientists, engineers, research scholars and managers at all levels interested to pursue research or technology development in the area of GNSS and autonomous vehicles.

See More Details at https://www.osmania.ac.in/News2022/GNSS-22_Poster_V_IV.pdf

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Keynote Talks:

1. **Dr.Manish Saxena, Satnav-PO, ISRO-HQ:** NavIC and emerging navigation applications
2. Dr.D.Sam Dayala Dev, IISU-ISRO
3. **Prof.P.Vijaykumar, IISc, Dr.Dileep Dharmappa, ISTRAC-ISRO and Ms.Sugandh Mishra, SAC-ISRO:** Novel IZ4 Spreading Code Design for NavIC's L1 Signal
4. **Prof.Hari Hablani, IIT, Indore:** High-Accuracy Flight Vehicles Position and Velocity Estimation Techniques using NavIC Aided Inertial Navigation
5. **Dr.Ashish Agarwal, NPL:** Atomic Clocks
6. **Smt.Padmavathi R, Jasmin Infotech:** Functional Safety in Autonomous Vehicles - a GNSS perspective
7. **Dr.Dinesh Manandhar, University of Tokyo:** GNSS Signal Security
8. **Dr.Susmita Bhattacharyya, IIT-KGP:** Kalman Filter-Based RAIM for Reliable Positioning with GNSS
9. **Dr.Narayan Panigrahi, CAIR-DRDO:** on Navigation using Digital Map and GNSS System
10. **Dr.Parimal Majitia, SAC-ISRO:** GNSS Systems – Standalone & Augmented
11. **Prof.Dennis M Akos, University of Colorado:** High Integrity Position, Navigation, and Timing (PNT) within the Android Mobile Phone Platform
12. **Dr.Ashish K Shukla, SAC-ISRO:** Pseudolite Based Navigation System for aviation Application
13. **Prof. Raj Kumar Pant, IIT, Bombay:** Precision Navigation System using Pseudolites Mounted on Airships

Further Presentations by Young Researchers and Sponsored Industry Talks.

ABOUT NERTU: The Research and Training Unit for Navigational Electronics (NERTU) is established in 1982. It is the focal point for research and training in the areas of Electronic Navigation in India. Since its inception, NERTU has successfully **executed 65 sponsored and consultancy projects and also 81 short term courses, conferences and workshops in the areas of** signal processing, communications and navigation. All the participants of the courses or sponsored projects are from various organizations like DRDO labs, ISRO labs, DST, MIT, ECIL, HAL, BEL, AICTE, ASL, other R &D and academic institutions. It is the first University centre to work in the area of Global Positioning System (GPS) and GPS Aided Geo Augmented Navigation (GAGAN) System. Recently, NERTU team has developed a GNSS software receiver running real time on a normal PC with i7 processor and very much interested to collaborate with industries and other Research Organizations.