Organised by: Department of Physics The University of Burdwan Burdwan 713 104 West Bengal

Date: 21-25 September, 2021 Application Last Date: 13 September, 2021

Application Link: https://atalacademy.aicteindia.org/login

Platform: Google Meet Link will be shared with selected candidates only

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Coordinator: <u>Dr Anindya BOSE</u> abose@phys.buruniv.ac.in

















Global Navigation satellite system (GNSS) has become popular for myriads of applications due to the advantages of reliability, precision, availability and costeffectiveness. Using satellite signals, GNSS provides accurate position, timing and velocity (PVT) information. As a result, multiple global (GPS from USA, GLONASS from Russia, Galileo from the European Union and Beidou from China) and regional (QZSS from Japan and IRNSS/ NavIC from India) systems are now operational. As per the GNSS Market Report (2019), the expected total GNSS business volume would be 2,525 billion Euros with applications sectors of consumer electronics, rail, road, aviation, maritime, surveying, logistics, agriculture, geomatics, timing and academic research. To maximize the use of multi-GNSS and to exploit the potential of NavIC, manpower training is required, that is aimed in this FDP.

The broad topics covered (not limited to) will be:

Basics of GNSS GNSS Positioning Methods **GNSS** Positioning Applications GNSS and Atmospheric research **GNSS Business**

Current Multi-GNSS situation **GNSS** error sources **GNSS** Timing Applications IRNSS/ NavIC: the Indian advantage GNSS data processing hands on.

Organizing Institution and Department:

The FDP is being organized by GNSS Laboratory, Burdwan (GLB) (http://bugnss.in), in the Department of Physics, The University of Burdwan. The laboratory has been developed with financial support from SAC-ISRO, DRDO, AICTE, ITR-DRDO, SERB-DST and is engaged in theory and application of GNSS and NavIC.

Speakers:

Swami Suparnanandaji Maharaj, Ramakrishna Mission Instt of Culture, Kolkata Sh Atul P Sukla, Former SAC-ISRO Dr P Banerjee, Former NPL, New Delhi Dr Saurabh Das, IIT, Indore Dr Nirvikar Dashora, NARL, ISRO Col V S Velan, Elena Geosystems

Dr Sweta Shah, SVNIT, Surat Dr Ivan Petrovski, iP Solutions, Japan Prof Andrei Kupriyanov, MIIGaiK, Russia Dr Dinesh Manandhar, Tokyo Univ, Japan Mr Rainer Horn, SpaceTech Partners, Belgium Mr Varadarajan Krish, liRA Dr Anindya Bose, BU

Industry Representatives (NTLab, Alberding, Trimble, Leica, more to confirm)

- Faculty members of the AICTE approved institutions, Research Scholars, PG Scholars, participants from Government, Industry from India can apply
- No registration fees. Completely online during 21-25 Sept 2021
- Maximum Participants: 200. For more details: https://www.aicte-india.org/atal
- To apply, go to: https://atalacademy.aicte-india.org/login, create your credentials/ login, select "Workshops", select "West Bengal" under state, select "September" under Month, scroll down and click on the + sign for the GNSS/ **NavIC and Applications Course**



Tentative Program Schedule

(21 - 25 September 2021)

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Date/ Day	11:00-11:45	12:00- 14:00	14:00- 14:45	14:45-16:45
21/09/2021	Inauguration and Introduction	Introduction to GNSS (Session #1)		Current GNSS Constellations, NavIC and Indian Advantages (Session #2)
	10:00-12:00	12:00- 14:00		14:45-16:45
22/09/2021	GNSS Positioning Methods and QSSS (Session #3)	Galileo and Potentials (Session #4)	B R E A K	GLONASS and future (Session #5)
23/09/2021	GNSS Software Receivers (Session #6)	GNSS Error Sources, Interference and Multipath Issues (Session #7)		GNSS Applications for Time Transfer (Session #8)
24/09/2021	Value Education (Session #9)	GNSS Industry: Global and India (Session #10)		GNSS Industry: Product Showcasing by manufacturers (Session #11)
	10:00-12:00	12:00- 14:00		14:30-16:30 16:30- 17:30
25/09/2021	GNSS for Atmospheric Research (Session #12)	GNSS for Atmospheric Research (Session #13)		GNSS Hands On (Session #14) Evaluation and Valediction

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Department of Physics, The University of Burdwan: http://phys.buruniv.ac.in

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<u>Contact</u>

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