

**4-DAY Short Course on Advances in GNSS Technologies & Applications, (16-19, August 2018) &
One Week School on Advanced GNSS Signal Processing, (20-25, AUGUST 2018)**

Research and Training Unit for Navigational Electronics, Osmania University, Hyderabad-500007

(TENTATIVE SCHEDULE)

	GNSS Technologies and Applications	08.30 - 10.00	10.30 - 11.45	TEA	11.45-13.00	LUNCH	14.00.15.30 Lab/Practice	TEA	16.00-17.30 Lab/Practice
Day-1 Thu 16/08		Registration & Inaugural Function	Principle and Overview of GNSS		Architecture of GNSS Systems		Signal Structure of GNSS Systems		GNSS Errors, DOP and Error Sources
Speaker									
Day-2 Fri 17/08		Differential Concepts and DGPS	Augmentations Systems with GAGAN		IRNSS/NAVIC		GNSS Receiver Basics & Practical Aspects		DEMOS
Speaker									
Day-3 Sat 18/08	Geodesy and Datums	GNSS Applications-Surveying-Geospatial	GNSS Applications- Civil Aviation	DGPS Standards	FIELD DEMOS				
Speaker									
Day-4 Sun 19/12	GNSS Applications-Defence	Development of GNSS/IRNSS applications	Development of GNSS/IRNSS applications	GNSS Market	Valedictory and Inaugural Session				
Speaker									
Day-5 Mon 20/08	GNSS Signal Processing (Advanced)	IRNSS Signal Structure and Message Content	Advances in the Signal Structure of GNSS Systems	Spreading modulations and signal mathematical representations	Receiver Overview	Generation of PRN Codes and Carrier			
Speaker									
Day-6 Tue 21/08		GNSS Antennas and Receiver front-end design	Basics of Acquisition	Advances in Acquisition	Acquisition	Acquisition			
Speaker									
Day-7 Wed 22/08		Digital Tracking Loop Design-Basics	Basics of Tracking GNSS Signals	Advances in Tracking GNSS Signals	Tracking	Tracking			
Speaker									
Day-8 Thu 23/08		Spreading Codes and characteristics Error Correction Codes	Data Decoding and Pseudo range Computation	Navigation Solutions Computation of Satellites & PVT of User	Navigation Data Decoding	Navigation Data Decoding			
Speaker									
Day-9 Fri 24/08	Computation of satellite and User Position	Modeling Errors, Scintillations, Cycle Slips	Code and Carrier Phase measurements	Navigation Solution	Navigation Solution				
Speaker									
Day-10 Sat 25/08	Basics of Kalman Filtering	Kalman Filtering for GNSS Navigation	GPS and INS Integration	Tools, Softwares and Recent Trends	Valedictory Session				
Speaker									