

**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)**

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