

Space Telecommunication & Navigation Laboratory



Services Provided:

- Communication systems simulation and modeling
- Link budget and radio frequency coverage analysis
- Transceivers & HW systems design and testing
- Radio frequency development
- Communication protocols simulation and development
- Communication link security protocols
- GPS and navigation systems simulation and development
- Design and development of antenna

Facilities Available:

- Keysight Vector network analyzer upto 44GHz
- Keysight Spectrum analyzer upto 44GHz
- NI Dual channel FPGA based USRP upto 6GHz
- Keysight PSG Vector Signal generator upto 44GHz
- Keysight arbitrary waveform generator
- NI Logic analyzer for system-level debugging of digital designs
- LPKF RF prototyping system
- DELL 32 TFLOPS CUDA workstation
- FPGA development tools
- Keysight ADS RF design software
- CST design software

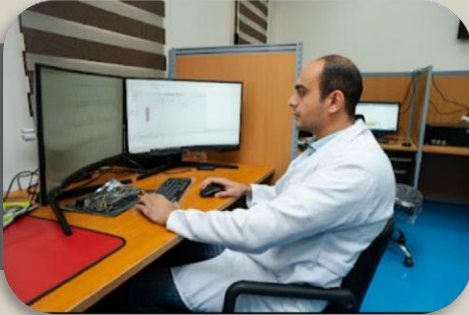
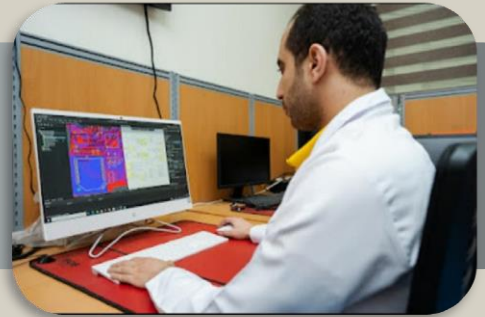
Samples from our Projects / Products:

- Satellite data handling software for EgSACube Series and Micro-satellites (NARSSCube-1&2, NExSat-1, etc...)
- On-Board computer & data handling subsystem (CDHS) for EgSACube and Micro-satellites (NARSSCube-1&2, NExSat-2)
- TT&C communication subsystems for EgSACube Series and Micro-satellites (NARSSCube-1&2, NExSat-2)
- LEO GPS receiver subsystem for Cubesat (EgSACube-5) and Micro-satellites (NExSat-2)
- Configurable telemetry module (TLM) subsystem for Micro-satellites (NExSat-2)
- Synthetic Aperture Radar (SAR) satellite payload
 - Inter-satellite RF link subsystem



Part of our Facilities / Services:

Keysight ADS and Altium designer for transceivers hardware design and simulation of RF circuit, antenna, and PCB .



FPGA development kits and CUDA workstation
Communication systems simulation and modeling
SDR system design

Keysight PSG vector signal generator and GNSS simulator
GPS and navigation systems simulation and development



NI FPGA based USRP up to 6GHz and Keysight arbitrary waveform generator
Communication and link security protocols simulation and development

Keysight Vector network analyzer and Spectrum analyzer up to 44GHz
RF units design, testing and development



And many others... Contact us to know more about our Services.

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