Est. 1928
K.N. Toosi University of Technology
Faculty of Electrical Engineering

Center for Research and Technology (CReaTech)

2016-2017

Research Thrust on:

Millimeter Wave and Terahertz Technology

Thrust Leader

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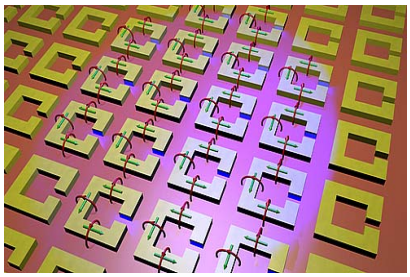
Assistant Professor

***Introduction**:*

The principal focus of this research thrust is on the design, simulation and implementation of millimeter wave and terahertz (THz) components. Periodic structures such as photonic crystals and metamaterials are useful configurations to realize THz devices such as sensors, muldaltors, switches, antennas, waveguides, and filters.

Research into THz technology is now receiving growing attention around the world. The goal of our research thrust is to develop compact and efficient devices, which can be used in diverse applications including spectroscopy, imaging, sensing, object detection, and high-speed wireless communications.

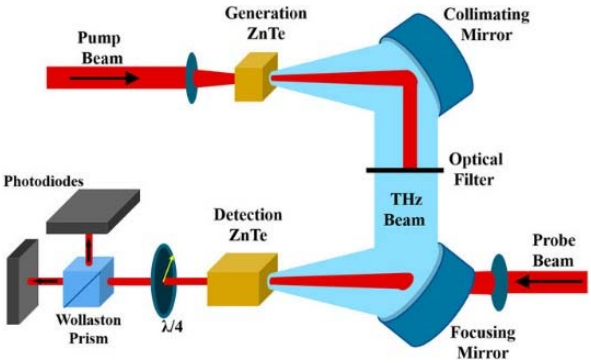


***Ongoing Project**:*

- Design and simulation of a VCO based on SIW structures
- Design, simulation, and implementation of a wideband differential power divider

***Research Areas**:*

- Microwave Components
- THz Generation and Detection
- THz and Millimeter-Wave Components
- Millimeter Wave Imaging/THz Imaging
- Nonlinear Optics



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