OPTOELECTRONICS RESEARCH POSITION

A highly-motivated semiconductor device scientist is needed to join our Optoelectronics Laboratory research team at Georgia State University as a postdoctoral researcher. Candidates should have a solid background in physics, electrical engineering, or materials science, with an emphasis on semiconductor device structures. Experience in FTIR, I-V-T measurements, device design will be critical. Our goal is to develop new concepts that may lead to the foundations for new device technologies and apply infrared techniques for minimally or noninvasive medical diagnosis.

A range of novel optical and transport phenomena in semiconductor quantum Nano and Micro structures are under investigation, with emphasis on the development of improved mid-to FIR (3-5 μm) detectors based on III-V materials. We plan to extend our ideas into novel 2D materials. Research carried out at GSU optoelectronics lab includes: i) device design and simulations ii) optical and electrical characterization of the devices iii) iterative optimization based on experimental results. In addition we are also working on developing minimally invasive screening techniques for Cancer and Ulcerative Colitis and other diseases.

More details of our work can be found at our website :http://www.phy-astr.gsu.edu/perera/research.html For further information, please contact: Prof. Unil Perera, Department of Physics & Astronomy, 400 Science Annex, Atlanta, GA 30303.
uperera@gsu.edu