Our new paper in journal of Optics and Laser technology

Congratulations to our new paper “Signature of plasmonic nanoparticles in multi-wavelength low power random lasing” by *S. F. Haddawi, Hammed R. Humud, S. M. Hamidi*

A multi-wavelength plasmonic random lasing is attained by core-shell nanoparticles and the mixture of metallic nanoparticles in the host dye medium. The plasmonic nanoparticles, fabricated using laser ablation in liquid, were mixed in the corresponding dye medium and pumped with green nano-second pulsed laser. Due to this optical pumping process of plasmonic nanoparticles, amplification of the fluorescence and the lasing activity took place due to the localized surface plasmon resonance and scattering of each nanoparticle, core-shell and mixture nanoparticles. Our results show efficient coherent random lasing due to the interface between two different metallic nanoparticles in the middle part of the visible spectral region considering its applicability in the design and fabrication of compact and miniaturized random laser sources.