

Title: Medical Imaging Informatics and Artificial Intelligence: An opportunity to democratize innovation in medicine

Speaker: Dr. Bishesh Khanal, Research Scientist and Chairperson of NAAMII

Abstract:

The talk will highlight how the recent advances in machine learning and medical imaging provide an opportunity to address unmet clinical needs of the low and middle income countries. I will present some of our state-of-the art deep learning based techniques in medical imaging, primarily in fetal ultrasound imaging for segmentation, 3D reconstruction, navigation, standard plane detection that could potentially allow non-experts to perform the ultrasound examination. Similarly, the talk will also shed some light and provide insights on how even with relatively small investment for new infrastructure, computational science and machine learning can contribute to fundamental research and innovation in biomedicine, effectively democratizing innovation in medicine.

Bio:

Dr. Bishesh Khanal is a research scientist and chairperson of NAAMII, a recently established research institute in Nepal focusing on informatics, AI and applied mathematics. He is also a senior AI scientist at Fusemachines and visiting researcher at King's College London. After completing his PhD from INRIA, Sophia Antipolis, France and Post-doctoral research at King's College London and Imperial College London, he moved back to Nepal in January 2019. His key areas of interest include visual perception, machine learning and AI with special interest in applying them to identify problems relevant to low income countries and help develop innovative solutions, particularly in the field of medicine. He believes that the advancement in computational science and AI has provided a unique opportunity for resource constrained countries to explore exciting avenues of research by just using some computers and quality manpower.