## Institute of Electrical and Electronics Engineers(IEEE) Hyderabad Section Joint Chapter of IEEE CIS/GRSS Societies, Hyderabad Section in Association with JNTUH IEEE Student Branch.

Presents **CIS Expert talk on**
# AI for Medical Imaging Informatics
By
## *Dr. KC Santosh, University of South Dakota, USA.*

**DATE:** 21 Nov 2022, Monday
**Time:** 3:30pm – 4:30pm (Indian Standard Time)

**Mode:** Physical

**Venue:**
CRC Seminar Hall, JNTUH College of Engineering Hyderabad

**REGISTRATION FEE:**-NIL-
**REGISTRATION LINK:**

https://forms.gle/zLLHPb8rKoLoxRkJA

**Point of Contact(s):**
**Dr. A. Kavitha,**
Associate Professor of CSE & ACE, JNTUH.
Secretary, IEEE Hyderabad CIS/GRSS Chapter.
athotakavitha@ieee.org

**Dr.K. Anitha Sheela,**
Professor of ECE & JNTUH IEEE SB Counsellor.
anithasheelakancharla@ieee.org

**Ms.Sai Amulya Iyyapu**
JNTUH Student Branch Chair.
amulyaiyyapu@ieee.org
+91-9059091659 (Mobile)

**Abstract:**

AI has contributed a lot to healthcare (AI-based decision-support systems with clinical significance). Infectious disease outbreak is no exception. The talk will provide a walk through about how AI-guided tools help in predicting/detecting infectious diseases such as Pneumonia, TB, and Covid-19. Infectious disease prediction and unexploited data will be discussed, as predictive analytical tools are limited to education and training (at least for Covid-19). It also covers shallow learning (handcrafted features) as well as deep learning mechanism in both image modalities: CT scan and Chest X-ray. Additionally, an obvious question, how big data is big will be discussed by taking two key points into account: data augmentation and transfer learning.

**Brief Bio of the Speaker:**

Prof. Santosh is the Chair of the Department of Computer Science (CS) at the University of South Dakota (USD). He also serves International Medical University (IMU), Malaysia as an Adjunct Professor (Full). For a year (AY 2019/20), he served School of Computing and IT, Taylor's University as a Visiting Associate Professor. Prior to that, he worked as a research fellow at the U.S. National Library of Medicine (NLM), National Institutes of Health (NIH). He worked as a postdoctoral research scientist at the LORIA research centre, Universite de Lorraine in direct collaboration with industrial partner, ITESOFT, France. He also served as a research scientist at the INRIA Nancy Grand Est research centre (France), where he received his PhD in Computer Science - Artificial Intelligence. Before that, he worked as a graduate research scholar at the SIIT, Thammasat University, Thailand. Prof. Santosh has demonstrated expertise in artificial intelligence, machine learning, pattern recognition, computer vision, image processing, data mining, and big data with various application domains such as healthcare informatics and medical imaging, document imaging, biometrics, forensics, speech/audio analysis, and Internet of Things. His research projects (with $2m+) are funded by multiple agencies such as SDCRGP, State of SD, Department of Education (DOE), National Science Foundation (NSF), and Asian Office of Aerospace Research and Development (AOARD).