

3<sup>rd</sup> International Conference on  
**Infection, Disease Control and Prevention**  
&  
2<sup>nd</sup> International Conference on  
**Microbial Pathogenesis & Infectious Diseases**  
June 25-26, 2018 | Vancouver, Canada



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**Artificial intelligence and machine learning in medical imaging science/radiography**

Artificial intelligence and machine-learning techniques can definitely advance the medical imaging science, since one can work on pixel-level (with no loss of information), which is completely different from how experts' eyes do. Further, one can handle large volume of data at once, which is the real need as we are required to deal with them and check the consistency in parallel. Machine, once trained with a large data can produce consistent results until we do not change the set up. Besides, for a resource-constrained areas/regions, use of the AI and machine-learning tool is the must. In my talk, I will focus on the need for screening HIV+ populations in resource-constrained regions for exposure to Tuberculosis (TB), using chest radiographs (CXR). The primary focus of the talk will be how important/essential data can be extracted from images in a way that one radiologist does as his/her routine work; and how such a data can be used for detecting abnormalities, i.e. pathologies by using machine learning algorithms. In the latter part of the talk, a real-world project will be demonstrated with satisfactory receiver operating characteristic curves.

**Biography**

K C Santosh 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, for 2 years. He also worked as a research scientist at the INRIA Nancy Grand Est research centre for 3 years, until 2011. K C Santosh has demonstrated expertise in pattern recognition, image processing, computer vision and machine learning with various applications in handwriting recognition, graphics recognition, document information content exploitation, medical image analysis and biometrics. He published more than 60 research articles, including a book section in encyclopedia of electrical and electronics engineering.

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