

# SIGML - SEMINAR LECTURE

SPECIAL INTEREST GROUP IN MACHINE LEARNING

Xerox Research Centre India

---

Title : Machine Learning for Multimedia Analytics

Speaker Dr. OM Deshmukh

Day October 14, 2015 , Wednesday

Time 6:00 PM

Venue KD 101 (CSE Main)

## **Abstract :**

The amount of multimedia data available online continues to grow exponentially. The recent surge in video-capturing devices has led to thousands of hours of video being captured every day. Automatic analysis of this large amount of content is a challenging research problem but has a wide range of applications, e.g.: efficient navigation, saliency detection, deep semantic analysis for summarization, event recognition etc. for different business domains such as education, customer care, healthcare, transportation.

Another challenging component of such multimodal analysis is obtaining labelled data. Labelling several hours of video data for learning is an extremely tedious task. Thus, developing algorithms for learning from weak supervision is an important research problem. In this talk, I will present our work on deriving meaningful concepts from raw multimedia data. I will also present our initial results on using Bayesian Nonparametrics based techniques for weak supervision in a multimodal setting.

**BIOGRAPHY :**

Om Deshmukh is a senior Research Scientist at XRCI and manages the Multimedia Analytics area. The Multimedia Analytics area focuses on machine learning and data analysis to derive meaningful concepts from raw multimedia data. Om is particularly interested in technological research that leads to high business and societal impact in the emerging markets. Om has 10+ years of experience in science and technology research in both academic and industrial research settings.

Prior to XRCI, Om was a Senior Research Scientist at IBM Research India (IRI) where he initiated and led several high-impact projects. One of his significant achievements at IBM was that he led the IBM Global Technology Outlook-2013 topic on "Personalized Education" by conceptualizing, promoting and building consensus among senior executives on technical and business strategies in the Education Industry. He presented this topic to the IBM CEO and the senior leadership team.

Om's research has led to 25+ patents and 35+ publications in peer-reviewed international journals and conferences, including 3 best student presentation awards. Om received his Ph.D. from the Electrical and Computer Engineering department of the University of Maryland, College Park.