NATURAL LANGUAGE PROCESSING AND TEXT ANALYTICS
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With the unprecedented growth in the volume and variety of text-rich data collected by organizations, there is an overarching need to extract hidden signals that can be used to inform smarter business decisions, find trends and anomalies. To this end, the application of natural language processing (NLP) based text analytics have recently become prominent solutions to deliver valuable business insights in a big data environment. NLP is a necessary means to facilitate text analytics by establishing structure in unstructured text to enable further analysis.

NLP-based text analytics spans across virtually all verticals and examples of its use cases can be found in finance, insurance, media, retail industries, oil and gas companies. Therefore, mastering natural language processing based analytical methods have become increasingly important for computer scientists, engineers and data scientists. It is also a fertile ground for carrying out innovative research in artificial intelligence for researchers to explore.

This course will cover state-of-the-art NLP and text analytics theory and practical application in a business and scientific context. The course will explain common text analytics and NLP tasks and illustrate several industry use-cases where text analytics and NLP are necessary tools to address real world business and scientific needs in a big data environment.

Objectives:

Natural language processing and text analytics use has grown as the unstructured big data available continues to increase exponentially in both relevance and quantity. The objective of this course is to:

- Introduce the participants to the principles, practical applications, and techniques of natural language processing with emphases on text analytics methods;
- Enable prospective students to acquire state-of-the-art theoretical and practical applications of natural language processing and text analytics methods and platforms used in practice; and
- Learn these topics through lectures and hands- on experiments. Also case studies and assignments will be shared to stimulate research motivation of participants.

The knowledge gained in this course will enable students to perform deep and wide analysis of large, unstructured data sets and link together multiple document sources to extract accurate value at the right time. After successfully completion of this course, the participants will be able to use a variety of state-of-the-art linguistic, statistical, and

machine learning techniques covered in this course to model and structure the textual sources for business intelligence, exploratory data analysis, research, and investigation purposes in a variety of domains.

Date	15.1.2018 – 26.1. 2018 Number of participants for the course will be limited to fifty. **Registration is on first come, first serve basis and space is limited!**
Who Can Attend?	▪ Students of Computer Science and Engineering, Information Science and Engineering, Electronics and Communication Engineering, research scholars working or interested in the area Natural Language Processing and Text Analytics. ▪ Faculty Members of Computer Science and Engineering, Information Science and Engineering, Electronics and Communication Engineering from academic institutions. ▪ Employee of Industry/Consulting Firms/ Research Organizations interested in Natural Language Processing and Text Analytics.
Pre-requisite	▪ Knowledge in Programming languages, Data structure would be beneficial.
Fees	The participation fees for taking the course is as follows: ▪ Participants from abroad : US $100 ▪ Participants within India : INR 2000 The above fee includes training program, Wi-Fi connectivity, and computer use for tutorials, assignments etc.
General Instruction	Participants are encouraged to bring their own laptop. Also participants need to make their own arrangements for food and accommodation.

The Faculty

International Faculty

Dr. Jemal H. Abawajy is a full professor at School of Information Technology, Faculty of Science, Engineering and Built Environment, Deakin University, Australia. He is currently the Director of the Parallel and Distributing Computing Laboratory. He is a Senior Member of IEEE Computer Society; IEEE Technical Committee on Scalable Computing (TCSC); IEEE Technical Committee on Dependable Computing and Fault Tolerance and IEEE Communication Society. Prof. Abawajy is actively involved in funded research supervising large number of PhD students, postdoctoral, research assistants and visiting scholar in the area of Cloud Computing, Big Data, Network and System Security, Decision Support System, and E-healthcare.

Host Faculty

Dr. Anil Kumar K.M received his Ph.D in 2012 from University of Mysore. He has teaching experience of 15 years. At present he is working as Associate Professor in the department of Computer Science and Engineering at Sri Jayachamarajendra College of Engineering, Mysuru. He has received three grants for research works from AICTE, India, VTU, Karnataka and IBM, India. He has published more than 25 research articles in various reputed conferences and peer reviewed journals. His research interests are in the areas of Data Mining, Web mining, Big Data etc.

Course Co-ordinator

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