

## About the Speaker



Dr. Erik Cambria received his BEng and MEng with honors in Electronic Engineering from the University of Genoa in 2005 and 2008, respectively. In 2012, he was awarded his PhD in Computing Science and Mathematics following the completion of an EPSRC project in collaboration with MIT Media Lab, which was selected as impact case study by the University of Stirling for the UK Research Excellence Framework (REF2014). After working at HP Labs India, Microsoft Research Asia, and NUS Temasek Labs, in 2014 Dr Cambria joined NTU School of Computer Science and Engineering as Assistant Professor. His current affiliations also include Rolls-Royce@NTU, Delta@NTU, A\*STAR IHPC, MIT Synthetic Intelligence Lab, and the Brain Sciences Foundation. He is Associate Editor of Elsevier KBS and IPM, Springer AIRE and Cognitive Computation, IEEE CIM, and Editor of the IEEE IS Department on Affective Computing and Sentiment Analysis, fields in which he is one of the most productive authors. Dr Cambria is also recipient of several awards, e.g., the Temasek Research Fellowship, and is involved in many international conferences as Workshop Organizer, e.g., ICDM and KDD, PC Member, e.g., AAAI and ACL, Program Chair, e.g., ELM and FLAIRS, and Keynote Speaker, e.g., CICLing.

## Course Coordinators

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## Department of CSE, IIT Patna

Indian Institute of Technology Patna is an autonomous institute of education and research in Engineering & Technology, Science, and Humanities located in Bihta, 35km from Patna. As of today, IIT Patna has 10 academic departments.

The Computer Science & Engineering Department has three major programs- B.Tech CS, M.Tech CS and PhD. Additionally, there is a M.Tech in Mathematics and Computing program jointly with Mathematics dept. The CSE department is equipped with several research and teaching labs. The faculty members of the department are engaged with various research, teaching and administrative activities. The department has a liaison with reputed

## IITP-AI-NLP-ML Group

The Artificial Intelligence-Natural Language Processing-Machine Learning (AI-NLP-ML) group (<http://www.iitp.ac.in/~ai-nlp-ml/>), Department of Computer Science and Engineering at IIT Patna has started its official journey in June, 2015. The group is dedicated to explore the frontiers of Artificial Intelligence, Machine Learning and Natural Language Processing under the able guidance of Prof. Pushpak Bhattacharyya, Dr. Asif Ekbal and Dr. Sriparna Saha. The group comprises of around 25 members including research scholars, research engineers, lexicographers, M.Tech and B.Tech students. The research in the group is funded by several industries such as Elsevier, Accenture, LG, ezDI and the Govt. agencies like MeITY and MHRD.

### Registration Link:-

<http://www.gian.iitkgp.ac.in/GREGN/index>

### CONTACT US

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## Global Initiative of Academics Networks (GIAN) Workshop

ON

## Big Social Data Analysis

26<sup>th</sup> February-2nd March, 2018

gian

Organized By  
**IITP-AI-NLP-ML GROUP**



Department of  
Computer Science and Engineering,  
Indian Institute of Technology, Patna  
Bihta, Bihar, India.

## About the GIAN

Govt. of India approved a new program titled Global Initiative of Academic Networks (GIAN) in Higher Education aimed at tapping the talent pool of scientists and entrepreneurs, internationally to encourage their engagement with the institutes of Higher Education in India so as to augment the country's existing academic resources, accelerate the pace of quality reform, and elevate India's scientific and technological capacity to global excellence.

## Scope of the WORKSHOP

Information is knowledge, information is money, and information is power. Unlike before, a huge amount of information is freely available on the Web today. In an era of social connectedness, in fact, people are becoming increasingly enthusiastic about interacting, sharing, and collaborating through social networks, online communities, blogs, Wikis, and other online collaborative media. In recent years, this collective intelligence has spread to many different areas, with particular focus on fields related to everyday life such as commerce, tourism, education, and health, causing the size of the Web to expand exponentially.

The distillation of knowledge from such a big amount of unstructured information, however, is an extremely difficult task, as the contents of today's Web are perfectly suitable for human consumption, but remain hardly accessible to machines. The opportunity to capture the opinions of the general public about social events, political movements, company strategies, marketing campaigns, and product preferences has raised growing interest both within the scientific community, leading to many exciting open challenges, as well as in the business world, due to the remarkable benefits to be had from marketing and financial market prediction.

Existing approaches to big social data analysis mainly rely on parts of text in which sentiment is explicitly expressed, e.g., through polarity terms or affect words (and their co-occurrence frequencies). However, opinions and sentiments are often conveyed implicitly through latent semantics, which make purely syntactical approaches ineffective. In this light, this course focuses on the introduction, presentation, and discussion of novel techniques that further develop and apply affective reasoning tools and techniques for big social data analysis. A key motivation for this course, in particular, is to explore the adoption of novel affective reasoning frameworks and cognitive learning systems to go beyond a mere word-level analysis of natural language text and provide novel concept-level tools and techniques that allow a more efficient passage from (unstructured) natural language to (structured) machine-processable affective data, in potentially any domain.

## Registration Fees

The Participation fees for attending the workshop is as follows:

**Participant from abroad:** US \$500

**Industry:** Rs. 10,000

**Academic Institutions:** Rs. 5,000

**Research Organization:** Rs. 5,000

**Student/Research Scholar:** Rs. 1,000

The above fee includes all instructional materials, tutorials, and Internet facility during class hours. The participants will be provided with single bedded accommodation on payment basis on availability of hostel facilities.

## How to Apply

Please follow the link for Registration process and for further details of this workshop:

<http://www.gian.iitkgp.ac.in/GREGN/index>

**Workshop Registration Deadline:**

Preferably: **10<sup>th</sup> February, 2018.**

## WORKSHOP Schedule

Date	Session Schedule
26/02/2018	<i>Introduction big social data analysis</i> <i>Boolean retrieval</i> <i>Indexing methods</i>
	<i>Tutorial 1</i>
27/02/2018	<i>Compression and optimization techniques</i> <i>Tolerant retrieval</i> <i>Data pre-processing</i>
	<i>Tutorial 2</i>
28/02/2018	<i>Vector space model</i> <i>Semantic similarity</i> <i>Dimensionality reduction</i>
	<i>Tutorial 3</i>
01/03/2018	<i>Clustering and classification</i> <i>Deep learning</i> <i>Commonsense reasoning</i>
	<i>Tutorial 4</i>
02/03/2018	<i>Sentiment analysis</i> <i>Social network analysis</i> <i>Multimodal fusion</i>
	<i>Tutorial 5</i>