About the Speaker

Prof. Andy Way has more than 25 year experience in Machine Translation R&D, first on the Eurotra project, then by running his own translation company, and subsequently by building up his own worldleading group at DCU. Between 2011-13, he worked in the translation industry in the UK. On Jan 1st 2014, he rejoined DCU as Associate Professor in Computing to take up the role of Deputy Director of the Centre for Next Generation Localization. In April 2015, he was promoted to Full Professor (personal chair). From Jan 1st 2015, he has been Deputy Director of the ADAPT Centre for Digital Content Technology. From 2009-15 he was President of the European Association for Machine Translation and was President of the International Association for Machine Translation (2011-13). He is also the Editor of the Machine Translation Journal (2007-till now).

Course Coordinators

Prof. Pushpak Bhattacharyya is a Professor of Computer Science and Engineering at IIT Bombay and currently the Professor and Director of IIT Patna. He was a Visiting research fellow in Massachusetts Institute of Technology in 1990. He is well known for his contributions to Natural Language Processing and has several distinctions in that field. He is the Vijay and SitaVashee Chair Professor at IITB, a fellow of INAE and the ex-president of ACL.

Dr. Asif Ekbal is currently a faculty member of the department of Computer Science and Engineering at Indian Institute of Technology Patna, India. His current research interests include Natural Language Processing, Machine Learning Applications, Information Extraction and Text Mining. He is the recipient of the Best Innovative Project Award from the INAE, JSPS Invitation Fellowship, Japan and Visvesvaraya Young Faculty Award from the Govt. of India.

Dr. Sriparna Saha is currently a faculty member of the department of Computer Science and Engineering at Indian Institute of Technology Patna, India. Her current research interests include pattern recognition, multi-objective optimization and biomedical information extraction. She is the recipient of the Lt Rashi Roy Memorial Gold Medal from ISI Kolkata, Google India Women in Engineering Award, 2008, Humboldt Research Fellowship, NASI Scopus Young Scientist Award etc.

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.

ORGANIZING COMMITTEE

Prof. Pushpak Bhattacharyya
Director, IIT Patna

Dr. Asif Ekbal
Associate Professor
IIT Patna

Dr. Sriparna Saha
Assistant Professor
IIT Patna

Registration Link:-
http://www.gian.iitkgp.ac.in/GREGN/index

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Global Initiative of Academics Networks (GIAN) Workshop

ON

Neural Machine Translation

gian

4th-10th December, 2017

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

In recent years deep neural network based approaches become popular in developing different models of MT. Neural machine translation is a new approach to machine translation, where we train a single, large neural network to maximize the translation performance. This is a radical departure from existing (phrase-based) statistical machine translation approaches, where a translation system consists of many sub components which are optimized separately. Neural Machine Translation (NMT) is a simple new architecture for getting machines to learn to translate. Despite being relatively new, NMT has already shown promising results, achieving state-of-the-art performance for various language pairs. Unlike the traditional phrase-based translation system which consists of many small sub-components that are tuned separately, neural machine translation attempts to build and train a single, large neural network that reads a sentence and outputs a correct translation. NMT permits accelerated and un-delayed access to information written in the different languages across the world.

Some works related to NMT are reported in good conferences like ACL (top ranked conference of Natural Language Processing) but research and practice of NMT are only at their beginning stage. This course will provide a great opportunity for young researchers of natural language processing to learn more about a very promising new approach to MT.

About IIT Patna

Indian Institute of Technology Patna is an autonomous institute of education and research in science, engineering and technology located in Bihta, 35km from Patna. As of today, IIT Patna has 10 academic departments and 3 Center of Excellence that offers B.Tech, M.Tech and PhD programs. The faculties of this institute come with academic and research training from various institutes of excellence within the country and abroad. The recent publication records of the faculty with several practical constraints appear to be outstanding. It includes many national and international journals of repute.

Registration Fees

The Participation fees for attending the workshop is as follows:

Participant from abroad: US $200
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/

Workshop Registration Deadline:
Preferably: **15th November, 2017.**

WORKSHOP Schedule

Date	Session Schedule
04/12/2017	*Introduction to Machine Translation* *Overview of Statistical Machine Translation(SMT)* *n-grams Language Models*
	Tutorial 1
05/12/2017	*Introduction To Neural Machine Translation(NMT)* *Neural Network Models and Training* *RNN Recurrent Neural Network Model*
	Tutorial 2
07/12/2017	*Sequence to Sequence RNNs* *GRU and LSTM*
	Tutorial 3
08/12/2017	*Attention and Visual Attention* *Sequence Labeling using RNNs* *Multilingual NMT*
	Tutorial 4
09/12/2017	*Convolutional Encoder for NMT* *Character level NMT and Tree RNNs*
	Tutorial 5
10/12/2017	*Feedbacks and Research Discussions*