Introduction:

The Computer Science and Engineering (CSE) department at the Indian Institute of Technology (IIT) Bombay is the largest among CSE Departments in any institute in India. The research and teaching in the department spans a wide spectrum of areas including algorithms, animation, artificial intelligence, compilers, combinatorial optimization, computer vision, data mining, embedded systems, formal methods, functional programming, e-commerce, graphics, databases, image processing and analysis, machine learning, medical image computing, mobile computing, natural language processing, object oriented systems, parallel and distributed processing, programming languages, reinforcement learning, query processing and optimization, real time systems, security, speech processing, software engineering, systems, theoretical computer science, wireless and sensor networks, and verification. The department has 45 faculty members, including 2 visiting faculty and 1 adjunct faculty, with Prof. Uday Khedker as the current head.

Student and Faculty Research Achievements (within the last year):

- Prof. Preethi Jyoti awarded a Google Faculty Research Award 2017 for research on accented speech recognition.
- The thesis entitled "Data as Graph: Discovery, Search, Retrieval" by Manoj Agarwal, under the guidance of Prof. Krithi Ramamritham, selected for an Honourable Mention under the ACM India Doctoral Dissertation Award 2017.
- The “Train 10,000 Teachers” (T10KT) project implemented jointly by IIT Bombay and IIT Kharagpur awarded the “Digital India Excellence Award 2017” in the category “Education” by the Pan-IIM World Management Conference. Prof. D.B. Phatak is the PI of this MHRD-funded project.
- Prof. Purushottam Kulkarni and Prof. Ajit A. Diwan are awarded Departmental Awards for teaching.
- MTech student Pratik Kalshetti, guided by Prof. Parag Chaudhuri, won the Qualcomm Innovation Fellowship 2017 India for his ongoing work with me on hand tracking for virtual reality.
- Prof. S. Sudarshan received Distinguished Alumnus Award from IIT Madras for 2017.
- Three students received the CISCO Fellowship: Vrunda Dave (guided by Prof. Krishna S.), Diptesh Kanojia (guided by Prof. Pushpak Bhattacharya), Kratika Gupta (guided by Prof. Suyash P. Awate).
List of Publications (Papers published in Peer-Reviewed Journals):

Ajit A. Diwan:

Ajit A. Diwan, Bodhayan Roy, Subir Kumar Ghosh:

Pooja Vyavahare, Nutan Limaye, Ajit A. Diwan, D. Manjunath:

Bikash Chandra, S. Sudarshan:

Pushkar J. Godbole, Abhiram G. Ranade, Rajkumar S. Pant:

Sarang Kulkarni, Rahul Patil, Mohan Krishnamoorthy, Andreas T. Ernst, Abhiram Ranade:

Gelli Ravikumar, Shrikrishna A. Khaparde, Rushikesh K. Joshi:

Srinivasan Iyengar, Navin Sharma, David E. Irwin, Prashant J. Shenoy, Krithi Ramamritham:

Kedar Khandeparkar, Krithi Ramamritham, Rajeev Gupta:

Sridhar Iyer, Shree Prakash Singh:

Sridhar Iyer, Shree Prakash Singh:

Supratik Chakraborty, Zurab Khasidashvili, Carl-Johan H. Seger, Rajkumar Gajavelly, Tanmay Haldankar, Dinesh Chhatani, Rakesh Mistry:


List of Publications (Papers Published in Conferences)

Alka Bhushan, Umesh Bellur, Kuldeep Sharma, Srijay Deshpande, Nandlal L. Sarda: Mining Swarm Patterns in Sliding Windows over Moving Object Data Streams. SIGSPATIAL/GIS 2017: 60:1-60:4

Abhijit Mishra, Kuntal Dey, Pushpak Bhattacharyya: Learning Cognitive Features from Gaze Data for Sentiment and Sarcasm Classification using Convolutional Neural Network. ACL (1) 2017: 377-387


Pushpak Bhattacharyya, Sachin Pawar, Girish Keshav Palshikar: End-to-end Relation Extraction using Neural Networks and Markov Logic Networks. EACL (1) 2017: 818-827


Anoop Kunchukuttan, Pushpak Bhattacharyya: Learning variable length units for SMT between related languages via Byte Pair Encoding. SWCN@EMNLP 2017: 14-24


Raksha Sharma, Arpan Somani, Lakshya Kumar, Pushpak Bhattacharyya: Sentiment Intensity Ranking among Adjectives Using Sentiment Bearing Word Embeddings. EMNLP 2017: 547-552

Naveen Saini, Shubham Chourasia, Sriparna Saha, Pushpak Bhattacharyya: A Self Organizing Map Based Multi-objective Framework for Automatic Evolution of Clusters. ICONIP (6) 2017: 672-682

Kevin Patel, Pushpak Bhattacharyya: Towards Lower Bounds on Number of Dimensions for Word Embeddings. IJCNLP(2) 2017: 31-36


Anoop Kunchukuttan, Maulik Shah, Pradyot Prakash, Pushpak Bhattacharyya: Utilizing Lexical Similarity between Related, Low-resource Languages for Pivot-based SMT. IJCNLP(2) 2017: 283-289
Joe Cheri Ross, Abhijit Mishra, Kaustuv Kanti Ganguli, Pushpak Bhattacharyya, Preeti Rao: 
Identifying Raga Similarity Through Embeddings Learned from Compositions' Notation. ISMIR 2017: 515-522

Aditya Joshi, Samarth Agrawal, Pushpak Bhattacharyya, Mark James Carman: 
Expect the Unexpected: Harnessing Sentence Completion for Sarcasm Detection. PACLING 2017: 275-287

Joe Cheri Ross, Pushpak Bhattacharyya: 
Towards Harnessing Memory Networks for Coreference Resolution. Rep4NLP@ACL 2017: 37-42

Titas Nandi, Chris Biemann, Seid Muhie Yimam, Deepak Gupta, Sarah Kohail, Asif Ekbal, Pushpak Bhattacharyya: 

Vikram Singh, Sunny Narayan, Md. Shad Akhtar, Asif Ekbal, Pushpak Bhattacharyya: 

Abhishek Kumar, Abhishek Sethi, Md. Shad Akhtar, Asif Ekbal, Chris Biemann, Pushpak Bhattacharyya 
IITPB at SemEval-2017 Task 5: Sentiment Prediction in Financial Text. SemEval@ACL 2017: 894-898

Deepanway Ghosal, Shobhit Bhatnagar, Md. Shad Akhtar, Asif Ekbal, Pushpak Bhattacharyya: 
IITP at SemEval-2017 Task 5: An Ensemble of Deep Learning and Feature Based Models for Financial Sentiment Analysis. SemEval@ACL 2017: 899-903

Md. Shad Akhtar, Palaash Sawant, Asif Ekbal, Jyoti Pawar, Pushpak Bhattacharyya: 
IITP at EmoInt-2017: Measuring Intensity of Emotions using Sentence Embeddings and Optimized Features. WASSA@EMNLP 2017: 212-218

Preeti Gopal, Ritwick Chaudhry, Sharat Chandran, Imants D. Svalbe, Ajit Rajwade: 
Tomographic Reconstruction Using Global Statistical Priors. DICTA 2017: 1-8

Deepak Garg, Ajit Rajwade: 
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Eeshan Malhotra, Karthik S. Gurumoorthy, Ajit Rajwade: 
Stronger recovery guarantees for sparse signals exploiting coherence structure in dictionaries. ICASSP 2017: 6085-6089

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