Curriculum Vitae

Personal Details

Name : **Tirthankar Ghosal**

Date of Birth: November 10, 1986

Address for Correspondence:

AI-NLP-ML Lab,Room 510, 5th Floor, Block-III
Department of Computer Science and Engineering
Indian Institute of Technology Patna
Bihta-801103, Bihar, India

Email : tirthankar.slg@gmail.com / tirthankar.pcs16@iitp.ac.in /ghosalt@ornl.gov

Skype Id : tirthankar_iitp   **Linked In** : www.linkedin.com/in/tirthankar-ghosal-ai/

Website : https://www.force11.org/users/tirthankar-ghosal

https://tirthankarslg.wixsite.com/website

Phone **:** +1 865 236 4071 / +91-9832669697 / +91-9472957353   **Office :** 0612-3028338 (INDIA)

Nationality : Indian

Educational Qualification

Name of Examination	Board/University	Year	Percentage/CGPA	Grade/Div.
Ph.D. (Computer Science and Engineering)	Indian Institute of Technology Patna	2016	Coursework & Comprehensive Examination Completed with 8.5 (CPI)	I
M.Tech (Computer Science & Engineering)	Sikkim Manipal Institute of Technology	2015	8.22(CGPA)	I
UGC-NET	University Grants Commission	2014	-	Qualified
West Bengal State Eligibility Test(WB-SET)	West Bengal College Service Commission	2014	-	Qualified
West Bengal Teachers Eligibility Test(WB-TET)	West Bengal School Service Commission	2012	-	Qualified
Master of Computer Applications	University of North Bengal	2009-2012	79.97	**Ist class Ist**
Bachelor of Computer Applications	University of North Bengal	2006-2009	68.17	**Ist Class Ist**
Higher Secondary (Class XII) Stream: Pure Science	West Bengal Council for Higher Secondary Education	2005	73.10	I
Madhyamik Pariksha (Class X)	West Bengal Board of Secondary Education	2003	86.50	I

Experience

i) Working as Visvesvaraya (Ph.D.) Research Scholar under Dr. Asif Ekbal and Prof. Pushpak Bhattacharyya in Elsevier Centre of Excellence for Natural Language Processing, IIT Patna since January,2016

ii) Worked as Assistant Professor in Dept. of Computer Science and Engineering in Sikkim Manipal Institute of Technology(SMIT), Majitar, East Sikkim-737136 from August,2012 to December,2015

iii) Worked as a lecturer of Computer Applications in IIAS College of Management, Siliguri from March,2012 to June,2012

iv) Currently visiting Oak Ridge National Laboratory, Oak Ridge, Tennessee, US as a visiting scholar to explore novelty detection on big scholarly data from March-August, 2019

Research in Progress

1. Devising a machine learning based system to automatically prune research articles based on their merit to reach the editor's desk (an automated AI peer reviewer/editor).
2. Developed a corpus and an intuitive measure to detect novelty of information at the document level from newspaper articles. Working towards developing another document level novelty detection corpus annotated at the sentence level to predict novelty score of a document.
3. Using citation networks, content extraction, bibliographic analysis to measure the impact/depth and scope of a scientific research article .
4. Experimenting with Decomposable Hierarchical Attention Model for Natural Language Inference to seek for semantic level redundancy from texts.
5. Recommender System for academic journals from a machine learning and IR perspective.
6. Predicting the novelty score of a document

Planned works

1. Knowledge Graphs in Novelty Detection (Scientific Literature).
2. Argumentation Mining/Academic Hedging on scientific research articles.

Collaborations

1. In a key position in a project with Elsevier to build a support system for Academic Peer Review
2. With the Computational Data Analytics Group, Oak Ridge National LAboratory, US

Publications[1]

1.   *TAP-DLND 1.0: A Corpus for Document Level Novelty Detection* by **Tirthankar Ghosal**, Amitra Salam, Swati Tiwari, Asif Ekbal and Pushpak Bhattacharyya published as a full paper at **LREC 2018** (H-Index: 43) held at Miyazaki, Japan
2.   *Document Level Novelty Detection: Textual Entailment Lends a Helping Hand* by Tanik Saikh, **Tirthankar Ghosal**, Asif Ekbal and Pushpak Bhattacharyya published in the proceedings of **ICON 2017** at Jadavpur University, Kolkata, India

---

3.   Sentiment analysis on (Bengali horoscope) corpus by **Tirthankar Ghosal,** Sajal Kanti Das and Saprativa Bhattacharjee published as a full paper in **IEEE INDICON 2015** held at Jamia Milia Islamia University, New Delhi, India

4.   *Can your paper evade the editors axe? Towards an AI assisted peer review system* by **Tirthankar Ghosal**, Rajeev Verma, Asif Ekbal, Sriparna Saha, Pushpak Bhattacharyya [https://arxiv.org/pdf/1802.01403.pdf]

5. *Investigating Impact Features in Editorial Pre-Screening of Research Papers* by **Tirthankar Ghosal**, Rajeev Verma, Asif Ekbal, Sriparna Saha and Pushpak Bhattacharyya accepted as a Poster paper in the 18th ACM/IEEE Joint Conference on Digital Libraries **(JCDL) 2018** held at Fort Worth, Texas, US from June 3-6, 2018 (CORE rank A*)

6. *Exploring the Implications of Artificial Intelligence in Various Aspects of Scholarly Peer Review* by **Tirthankar Ghosal** accepted in Doctoral Consortium of the 18th ACM/IEEE Joint Conference on Digital Libraries **(JCDL) 2018** held at Fort Worth, Texas, US from June 3-6, 2018 (CORE rank A*)

7. *Investigating Domain Features For Scope Detection and Classification of Scientific Articles* by **Tirthankar Ghosal**, Ravi Sonam, Sriparna Saha, Asif Ekbal and Pushpak Bhattacharyya accepted as a full paper in the 7th International Workshop on Mining Scientific Publications **(WOSP 2018)** held in conjunction with LREC 2018 at Miyazaki, Japan from May 7-11, 2018.

8. *Novelty goes Deep: A Deep Neural Approach Towards Document Level Novelty Detection* by **Tirthankar Ghosal**, Vignesh Edithal, Asif Ekbal, Pushpak Bhattacharyya, Sameer Chivukula and Georgios Tsatsaronis accepted as a full paper in the 27th International Conference on Computational Linguistics **(COLING 2018)** held at Santa Fe, New-Mexico, USA (CORE rank A/H-Index: 35).

9. *To Comprehend the New: On Measuring the Freshness of a Document* by **Tirthankar Ghosal**, Abhishek Shukla, Asif Ekbal and Pushpak Bhattacharyya accepted as a full paper in the 37th International Joint Conference on Neural Networks **(IJCNN 2019)** to be held at Budapest, Hungary (CORE rank A/H-Index: 31).

10. *Is the Paper Within Scope? Are You Fishing in the Right Pond?* by **Tirthankar Ghosal**, Asif Ekbal, Sriparna Saha, Pushpak Bhattacharyya and Ravi Sonam accepted as short paper in the 19th ACM/IEEE Joint Conference on Digital Libraries **(JCDL) 2019** to be held at University of Illinois Urbana-Champaign, US from June 2-5, 2019 (CORE rank A*)

11. *A Deep Multimodal Investigation To Determine the Appropriateness of a Scholarly Submission* by **Tirthankar Ghosal**, Ashish Raj, Asif Ekbal, Sriparna Saha, and Pushpak Bhattacharyya accepted as full paper paper in the 19th ACM/IEEE Joint Conference on Digital Libraries **(JCDL) 2019** to be held at University of Illinois Urbana-Champaign, US from June 2-5, 2019 (CORE rank A*)

12. *A Multiview Clustering Approach To Identify Out-of-Scope Submissions in Peer Review* by **Tirthankar Ghosal**, Debomit Dey, Avik Dutta, Asif Ekbal, Sriparna Saha and Pushpak Bhattacharyya accepted as poster paper in the 19th ACM/IEEE Joint Conference on Digital Libraries **(JCDL) 2019** to be held at University of Illinois Urbana-Champaign, US from June 2-5, 2019 (CORE rank A*)

13. *Incorporating Full Text and Bibliographic Features to Improve Scholarly Journal Recommendation* by **Tirthankar Ghosal,** Ananya Chakraborty, Ravi Sonam, Asif Ekbal, Sriparna Saha and Pushpak Bhattacharyya accepted as poster paper in the 19th ACM/IEEE Joint Conference on Digital Libraries **(JCDL) 2019** to be held at University of Illinois Urbana-Champaign, US from June 2-5, 2019 (CORE rank A*)

Other Assignments

1. Member of the organization committee of NAACL 2019 looking into the financial access side of Diversity and Inclusion initiative
2. Regular reviewer of ACM-TALLIP and NLP/CL conferences like ICON, LREC, RecSys, NAACL
3. Regular reviewer of SADHANA, a journal published by Indian National Academy of Sciences
4. Organizer of three GIAN (an MHRD, GOI initiative) courses at IIT Patna
5. Teaching Assistant in several courses for B.Tech at IIT Patna, guiding internship candidates from premier Indian institutes on different ML, DL, AI projects along with IIT Patna undergraduate students.

Skills

- *Computer Languages:* Python, C, C++
- *Software Proficiency:* WEKA, Rapid Miner, StanfordCoreNLP, NLTK, PyTorch, Keras+Theano
- *Aware of the current developments in the fields of Deep Learning and Artificial Intelligence for Natural Language Processing.*
- *Classification, Information Extraction, Deep Neural Network architectures, Scholarly Data Mining & Analysis, Clustering*

Awards/Achievements

1. **University First rank medal** for securing the highest marks in BCA examinations under University of North Bengal (Session: 2006-09). The medal awarded in April, 2010.

2. **University First Class First Gold medal** for securing the highest marks in MCA examinations under University of North Bengal (Session: 2009-12). Awarded on 26th February, 2015.

3. **Jindal Jubilee Gold medal** for securing the highest marks in MCA under University of North Bengal (Session: 2009-12). Awarded on 26th February, 2015.

4. **Late Sourav Bhattacharya Memorial Medal** for securing the highest marks in MCA under University of North Bengal (Session: 2009-12). Awarded on 26th February, 2015.

5. Awarded high-value **Visvesvaraya fellowship (MEITY)** for pursuing Ph.D. in IIT Patna in January,2016

6. Selected for **MHRD fellowship** for pursuing Ph.D. in IIT Patna in January,2016

7. Selected for best research presentation from CSE dept. at Research Scholars Day, IIT Patna

8. Selected for **ACM-SIGCHI Student Support Travel Grant** to attend and present current work on recommendation systems for academic journals (if accepted) in ACM RecSys 2018 held in Vancouver, Canada from October 2-7, 2018

9. Has been awarded the **ACM SIGIR Student Travel Grant 2018** to attend the 18th ACM/IEEE Joint Conference on Digital Libraries (JCDL) 2018 held at Fort Worth, Texas, US from June 3-6, 2018

10. Has been awarded the **Microsoft Research Travel Grant 2018** to attend the 27th International Conference on Computational Linguistics **(COLING 2018)** held at Santa Fe, New-Mexico, USA from August 20-26, 2018

11. Has been awarded the **Visvesvaraya Conference Grant** to attend **COLING 2018**

12. Invited in **FORCE11 2018 conference** to present on AI in scholarly communications held at McGill University, Montreal from October 10-11, 2018 with full sponsorship awarded by CrossRef

13. Selected to present research on Novelty Detection at **IRISS 2019, ACM India Annual Event** to be held at Kochi, India from February 6-8, 2019 with funding from ACM India Chapter.

14. Selected for the **Augmenting Writing Skills for Articulating Research** (**AWSAR**) 2018 award for popular science writing on Artificial Intelligence in Peer Review by Department of Science and Technology (DST), Government of India

References

1. Prof. Pushpak Bhattacharyya
   Director, IIT Patna
   ex-President Association of Computational Linguistics(ACL)
   Professor Department of Computer Science and Engineering (IIT Bombay and IIT Patna)
   email: pb@cse.iitb.ac.in / pushpakbh@gmail.com
   http://www.cse.iitb.ac.in/~pb

2. Dr. Asif Ekbal
   Associate Professor & Dean (R&D)
   Department of Computer Science and Engineering
   Indian Institute of Technology Patna
   Email : asif@iitp.ac.in / asif.ekbal@gmail.com
   http://www.iitp.ac.in/~asif/