

Faculty Profile

Name: Dr. Riyanka Manna
Designation: Assistant Professor
Branch: Computer Science & Engineering



Educational Qualification(s):

Qualification(s)	University
B.Tech (Computer Science & Engineering)	Academy Of Technology (Under WBUT)
M.Tech (Computer Science & Engineering)	Lovely Professional University, Punjab
PhD (Computer Science & Engineering)	Jadavpur University, Kolkata

Experience in years:

Academic: 5 years

Details:

Sl. No.	Organization	Position Held	Duration	
			From	To
1	ICFAI University, Tripura	Assistant Professor	2026	Till date
2	Amrita Vishwa Vidyapeetham, Andhra Pradesh	Assistant Professor	2023	2026
3	Adamas University, Kolkata	Assistant Professor	2022	2023
4	NIT Warangal	Ad-hoc faculty	2021	2022

Other Information:

a) Publication details:

Journal publication:

1. Abdullah Khilji, **Riyanka Manna**, Sahinur Laskar, Partha Pakray, Dipankar Das, Sivaji Bandyopadhyay, Alexander Gelbukh. “*Question Classification and Answer Extraction for*

- Developing a Cooking QA System*”, Computación y Sistemas – Thematic Issue on Language & Knowledge Engineering (Guest editors: D. Pinto, B. Beltrán, A. Vázquez), Vol. 24, No. 2, 2020,
2. Amarnath Pathak, Riyanka Manna, Partha Pakray, Dipankar Das, Alexander Gelbukh and Sivaji Bandyopadhyay, “*Scientific Text Entailment and a Textual Entailment based Framework for Cooking Domain Question Answering*”, Sādhana Springer Journal, 46, Article number: 24 (2021), Indian Academy of Sciences, Indexed in Science Citation Index – Expanded, doi: 10.1007/s12046-021-01557-9, **SCIE Impact Factor: 1.214**
 3. Abdullah Khilji, Riyanka Manna, Sahinur Laskar, Partha Pakray, Dipankar Das, Sivaji Bandyopadhyay, Alexander Gelbukh. “*CookingQA: Answering Questions and Recommending Recipes based on Ingredients*”, Arabian Journal for Science and Engineering, Springer, **SCIE Impact Factor: 2.807**, SCIE.
 4. Riyanka Manna, Dipankar Das, Alexander Gelbukh. “*Question-Answering and Recommendation System on Cooking Recipes*”, Computación y Sistemas, Vol. 25, No. 1, 2021, pp. 223–235, ISSN 2007-9737, doi: 10.13053/CyS-25-1-3899. [2021] (**JCR Impact Factor: 0.6**, ESCI, Scopus Indexed)
 5. Sahinur Rahman Laskar, Bishwaraj Paul, Pankaj Dadure, Riyanka Manna, Partha Pakray, and Sivaji Bandyopadhyay, “*English-Assamese Neural Machine Translation using Prior Alignment and Pre-trained Language Model*”, Computer Speech & Language Journal, ISSN 0885-2308. **Impact Factor: 3.252**.
 6. Vanlalmuansangi Khenglawt, Sahinur Rahman Laskar, Partha Pakray, Riyanka Manna, Ajoy Kumar Khan, “*Machine Translation for Low-Resource English-Mizo Pair Encountering Tonal Words*”, Computación y Sistemas, Vol. 26, No. 3, 2022, pp. 1377–1398 doi: 10.13053/CyS-26-3-4358. (**JCR Impact Factor: 0.6**, ESCI, Scopus Indexed)
 7. Abdullah Faiz Ur Rahman Khilji, Utkarsh Sinha, Pintu Singh, Adnan Ali, Pankaj Dadure, Riyanka Manna, Partha Pakray, “*Multimodal Recipe Recommendation System using Deep Learning and Rule-Based Approach*”, SN Computer Science, Springer. (**Scopus Indexed**)
 8. Abdullah Faiz Ur Rahman Khilji, Utkarsh Sinha, Pintu Singh, Adnan Ali, Sahinur Rahman Laskar, Pankaj Dadure, Riyanka Manna, Partha Pakray, Benoit Favre, Sivaji Bandyopadhyay, “*Multimodal text summarization with evaluation approaches*”, Sādhana Springer Journal, **SCIE Impact Factor: 1.214**, SCIE.
 9. Shyambabu Pandey, Partha Pakray, Riyanka Manna “*Quantum Classifier for Natural Language Processing Applications*”, Computación y Sistemas, doi: 10.13053/CyS-26-3-4358. (**JCR Impact Factor: 0.6**, ESCI, Scopus Indexed)
 10. Swapnaneel Dhar, Riyanka Manna, Abhijit Pandit, Prema Nedungadi, Aditya Kumar Sahu “*Self-recovery based dual layer fragile image watermarking*” Intelligence-Based Medicine, 2026

Conference Publications:

1. **Riyanka Manna**, Rahul Saha, and G. Geetha, "***Complexity Analysis of Image-based CAPTCHA***", In Proceedings of International Conference on Computing Sciences (ICCS), 2012, Publisher: IEEE, Digital Object Identifier: 10.1109/ICCS.2012.20, ISBN 978-1-4673-2647-6, DOI 10.1109/ICCS.2012.20, Pp. 88-94, 14-15 Sept. 2012, Phagwara, India
2. **Riyanka Manna**, Partha Pakray, Somnath Banerjee, Dipankar Das and Alexander Gelbukh, "***CookingQA: A Question Answering System based on Cooking Ontology***", In Advances in Computational Intelligence: 15th Mexican International Conference on Artificial Intelligence, MICAI 2016, Cancún, Quintana Roo, Mexico, October 23 to 29, 2016. Proceedings, Part I. Lecture Notes in Artificial Intelligence, Volume 10061, ISBN 978-3-319-62434-1, DOI 10.1007/978-3-319-62434-1_6.
3. Somnath Banerjee, Partha Pakray, **Riyanka Manna**, Dipankar Das, Alexander Gelbukh "***NITMZ-JU at IJCNLP-2017 Task 4: Customer Feedback Analysis***", In Proceedings of the 8th International Joint Conference on Natural Language Processing (IJCNLP), Shared Tasks, pages 180–183, Taipei, Taiwan, November 27 – December 1, 2017.
4. **Riyanka Manna**, Dipankar Das, Alexander Gelbukh. "***Information Retrieval-Based Question Answering System on Foods and Recipes***". In: Martínez-Villaseñor L., Herrera-Alcántara O., Ponce H., Castro-Espinoza F.A. (eds) Advances in Computational Intelligence. MICAI 2020. Lecture Notes in Computer Science, vol 12469. Springer, Cham.
5. **Riyanka Manna**, Dipankar Das, Alexander Gelbukh. "***Question Classification in a Question Answering System on Cooking***". In: Martínez-Villaseñor L., Herrera-Alcántara O., Ponce H., Castro-Espinoza F.A. (eds) Advances in Computational Intelligence. MICAI 2020. Lecture Notes in Computer Science, vol 12469. Springer, Cham
6. Prottay Kumar Adhikary, **Riyanka Manna**, Sahinur Rahman Laskar, Partha Pakray, "***Ontology-Based Healthcare Hierarchy Towards Chatbot***", International Conference on Computational Intelligence in Communications and Business Analytics (CICBA 2022), CCIS Springer..
7. Vanlalmuansangi Khenglawt, Sahinur Rahman Laskar, **Riyanka Manna**, Partha Pakray and Ajoy Kumar Khan, "***Recent Trends on Low-Resource Neural Machine Translation and Research Scope for English-Mizo Pair***", International Conference on Intelligent Computing Systems and Applications National Institute of Technology Silchar Conference, Date: September 23-24, 2022
8. Sahinur Rahman Laskar, Pankaj Dadure, **Riyanka Manna**, Partha Pakray and Sivaji Bandyopadhyay, "***English to Bengali Multimodal Neural Machine Translation using***

Transliteration-based Phrase Pairs Augmentation", The 9th Workshop on Asian Translation, pages 111–116 October 17, 2022

9. Sahinur Rahman Laskar, Riyanka Manna, Partha Pakray and Sivaji Bandyopadhyay, ***"Investigation of Multilingual Neural Machine Translation for Indian Languages"***, The 9th Workshop on Asian Translation, pages 78–81 October 17, 2022.
10. Sahinur Rahman Laskar, Rahul Singh, Md Faizal Karim, Riyanka Manna, Partha Pakray and Sivaji Bandyopadhyay, ***"Investigation of English to Hindi Multimodal Neural Machine Translation using Transliteration-based Phrase Pairs Augmentation"***, In Proceedings of the 9th Workshop on Asian Translation, pages 117–122 October 17, 2022.
11. Vanlalmuansangi Khenglawt, Sahinur Rahman Laskar, Riyanka Manna, Partha Pakray and Ajoy Kumar Khan ***"Mizo Visual Genome 1.0: A Dataset for English-Mizo Multimodal Neural Machine Translation"***, Track 5: Artificial Intelligence, Data Science & Computing, IEEE SILCON 2022, 4-6 November 2022, National Institute of Technology Silchar.
12. Sahinur Rahman Laskar, Rahul Singh, Shyambabu Pandey, Riyanka Manna, Partha Pakray and Sivaji Bandyopadhyay, ***"CNLP-NITS-PP at MixMT 2022: Hinglish–English Code-Mixed Machine Translation"***, Seventh Conference on Machine Translation (WMT22), pages 1158–1161 Abu Dhabi, December 7–8, 2022
13. Prachurya Nath, Prottay Kumar Adhikary, Pankaj Dadure, Partha Pakray, Riyanka Manna and Sivaji Bandyopadhyay, ***"Image Caption Generation for Low-Resource Assamese Language"***, In ***The 34TH CONFERENCE ON COMPUTATIONAL LINGUISTICS AND SPEECH PROCESSING (ROCLING 2022)***, November 2022
14. Sahinur Rahman Laskar, Rahul Singh, Abdullah Faiz Ur Rahman Khilji, Riyanka Manna, Partha Pakray, Sivaji Bandyopadhyay. ***"CNLP-NITS-PP at WANLP 2022 Shared Task: Propaganda Detection in Arabic using Data Augmentation and AraBERT Pre-trained Model"***. In Proceedings of the The Seventh Arabic Natural Language Processing Workshop (WANLP) (pp. 541-544)
15. Prottay Kumar Adikary, Pankaj Dadure, Riyanka Manna and Partha Pakray, ***"An approach towards abstractive summary generation and knowledge graph representation"***, 3rd INTERNATIONAL CONFERENCE ON EMERGING ELECTRONICS AND AUTOMATION 15th - 17th Dec, 2023
16. Partha Pakray, Santanu Pal, Advaithe Vetagiri, Reddi Mohana Krishna, Arnab Kumar Maji, Sandeep Kumar Dash, Lenin Laitonjam, Lyngdoh Sarah, Riyanka Manna, ***" Findings of WMT 2024 Shared Task on Low-Resource Indic Languages Translation"***, Proceedings of the Ninth Conference on Machine Translation (WMT), pages 654–668 November 15–16, 2024. ©2024 Association for Computational Linguistics.
17. Partha Pakray, Reddi Krishna, Santanu Pal, Advaita Vetagiri, Sandeep Dash, Arnab Kumar Maji, Saralin A Lyngdoh, Lenin Laitonjam, Anupam Jamatia, Koj Sambyo, Ajit Das and

Riyanka Manna. “*Findings of WMT 2025 shared task on Low-resource Indic Languages Translation*”, In Proceedings of the Tenth Conference on Machine Translation under Conference on Empirical Methods in Natural Language Processing (EMNLP), November 5-9, 2025, Suzhou, China.

Book Chapters:

1. Chapter: “***AI Chatbots in Healthcare Services***”: Pankaj Dadure, Partha Pakray, **Riyanka Manna**, Thipendra P Singh – In book chapter to the book of “*Data-Centric AI Solutions and Emerging Technologies in the Healthcare Ecosystem*”, it will be published by Taylor & Francis Group USA.
2. Chapter: “***Efficacy of Ontology based Healthcare Chatbot System***”: Prottay Kumar Adhikary, **Riyanka Manna** and Partha Pakray – In book chapter to the book of “*Data-Centric AI Solutions and Emerging Technologies in the Healthcare Ecosystem*”, it will be published by Taylor & Francis Group USA.

Patents:

- ***Hybrid Quantum Classical Recurrent Neural Network for Sequence Labeling Task, Indian Design Patent (Submitted - 13/06/2025 - under review)***
- ***A System on Answering Questions and Recommending Recipes based on Ingredients , German Utility Patent (Granted - Ref No. 202022105100).***
- ***Efficacy of Formula Representation and Ranking for Mathematical Information Retrieval, German Utility Patent (Granted: Ref No 202022106616)***

Details of Seminar/Workshop/Conference:

Expert Talk at the Workshop entitled “***Quantum Natural Language Processing, Theory, Applications and Prospects***” at Aix-Marseille University, France, during Sept 25-27, 2024 (Physically) and ***Travel Grant Funded by CEFIPRA, DST (Govt of India)***.