

SANDIP SARKAR

Assistant Professor

Computer Science and Application
Hijli College
Post: Hijli Co-operative, Kharagpur
Dist.: Paschim Medinipur
West Bengal, India, PIN-721306

Email Address: sandipsarkar.ju@gmail.com

*"All power is within you; you can do anything and everything.
Believe in that, do not believe that you are weak."*

Swami Vivekananda



OBJECTIVE

I am seeking a challenging and responsible job that will enable me to make the most of my education and expertise. In this position, I want to make a substantial contribution to my employer using my passion, creativity, and problem-solving skills. Additionally, I hope to keep developing professionally in this role.

TEACHING & RESEARCH EXPERIENCE

More than 7 and Half Years as an Assistant Professor in Hijli College

Date of Joining - 22/12/2016

Visiting Faculty, Post Graduation Course (M.Sc.)

July, 2018 - July, 2020

Department of Computer Science, Midnapore College, Midnapore

Citations — 80 & **h-index** — 4 & **i10-index** — 3

https://scholar.google.com/citations?user=tuUfV_UAAAAJ&hl=en

CURRENT POSITION

Assistant Professor

Department of Computer Science & Application
Hijli College, Kharagpur, West Bengal

Ph.D. Thesis Submitted

Computer Science & Engineering, Jadavpur University, Kolkata

ACHIVEMENTS

Qualified GATE Exam

2012

Qualified West Bengal SET Exam

December-2014

Qualified UGC NET for Assistant Professor

December-2014

FELLOWSHIP

GATE Fellowship During Post-Graduation(M.E.)

2012-2014

EDUCATION

Ph.D. Thesis Submitted Computer Science & Engineering Jadavpur University, Kolkata	2024
Jadavpur University, Kolkata M.E (Master of Computer Science & Engineering) Thesis: A Survey on Threats and Vulnerabilities of Web Services https://docplayer.net/15081137-A-survey-on-threats-and-vulnerabilities-of-web-services.html	2012-2014
Jalpaiguri Govt. Engineering College B.Tech in Computer Science & Engineering	2007-2011
Raiganj Coronation High School Higher Secondary Examination (XII) , W.B.C.H.S.E	2007
Raiganj Coronation High School Secondary Examination (X) , W.B.B.S.E	2005

ORIENTATION & REFRESHER COURSES

Online Induction Training for Faculty Organized by Ramanujan College in collaboration with Central university of Tamil Nadu VCSG Uttarakhand University of Horticulture and Forestry. Dhote Bandhu Science College, Gondia	10 November - 09 December 2020
Refresher Course Organized by UGC-Human Resource Development Centre, Ranchi University	15 September - 28 September 2021
Faculty Induction Programme Organized by UGC-Human Resource Development Centre, Ranchi University	4th January - 31 January 2021

INDUSTRIAL TRAINING

Globsyn Database Management System	October-2010
IBM Core Java	July-2011

SUBJECT TAUGHT

Design & Analysis of Algorithm	Computer Networks
Text Analytics	Database Management System
Python Programming	Java Programming

RESEARCH INTERESTS

Question Answering	Deep Learning
Natural Language Processing	Network Security
Mathematical Word Problem	Information Extraction

TECHNICAL STRENGTHS

Computer Languages C, C++, Java, MATLAB, Python, PHP

Tools Weka, NLTK, Apache tomcat, Nutch, Matlab, Gensim, Keras, Tensorflow, Apache Solr

CONFERENCE/ SEMINAR/ WORKSHOP ATTENDED & PAPER PRESENTED

Software Freedom Workshop 2012
Organized by Kolkata Chapter of Indian GNU/LINUX Users Group, Free Software Mancha West Bengal, Fedora Project, India and School of Mobile Computing and Communication, Jadavpur University

ICISS 2015
Eleventh International Conference on Information System Security, Jadavpur University, Kolkata, India

FIRE 7 - 10 December, 2016
8th meeting of Forum for Information Retrieval Evaluation, Indian Statistical Institute (ISI), Kolkata

NPTEL SPOC Workshop 8th July, 2017
IIT Kharagpur

ICON 18th - 21st December, 2017
14th International Conference on Natural Language Processing, Jadavpur University, Kolkata, India

NPTEL SPOC Workshop 6th January, 2018
IIT Kharagpur

International Seminar 2019
Higher Education in 21st Century Issues and Challenge, Hijli College, Kharagpur

COMSYS-2020 13th to 15th January 2020
International Conference on Frontiers in Computing and Systems Organised by Department of CSE and ECE Jalpaiguri Government Engineering College, Jalpaiguri, West Bengal, India

ETAERE-2020 5th to 6th March 2020
2nd International Conference on Emerging Trends and Advances in Electrical Engineering and Renewable Energy KIIT Deemed to be University, Bhubaneswar, Odisha

CICBA - 2022 January 7-8, 2022
Fourth International Conference on Computational Intelligence in Communications and Business Analytics Department of Computer Science & Engineering, Assam University, Silchar

CLEF 2022 5 - 8 September 2022
Conference and Labs of the Evaluation Forum Information Access Evaluation meets Multilinguality, Multimodality, and Visualization
hosted by Università di Bologna, Italy

EVALITA 2023 7th and 8th of September, 2023
8th Evaluation Campaign of Natural Language Processing and Speech Tools for Italian
Parma, Italy

Workshop on 3D Printing in Research and Education 7th and 8th of October, 2023
Organized by Agricultural and Food Engineering Department
IIT Kharagpur.

CONFERENCE PUBLICATIONS

1. **Sandip Sarkar**, Dipankar Das, Partha Pakray, Alexander Gelbukh, "JUNITMZ at SemEval-2016 Task 1: Identifying Semantic Similarity Using Levenshtein Ratio", at Proceedings of SemEval-2016, pages 702–705, San Diego, California, June 16-17, 2016. Association for Computational Linguistics. [\[ACL Anthology\]](#)(Cited by: 19)
<http://www.aclweb.org/anthology/S16-1108>
2. **Sandip Sarkar**, Saurav Saha, Jereemi Bentham, Partha Pakray, Dipankar Das, Alexander Gelbukh. NLP-NITMZ@DPIL-FIRE2016: Language Independent Paraphrases Detection. Working notes of FIRE 2016 - Forum for Information Retrieval Evaluation. Kolkata, India, December 7–10, 2016. CEUR Workshop Proceedings, ISSN 1613-0073, Vol. 1737, CEUR-WS.org, 2016, pp. 256–259. [\[CEUR Workshop Proceedings\]](#) (Cited by: 15)
<http://ceur-ws.org/Vol-1737/T6-5.pdf>
3. **Sarkar S.**, Pakray P., Das D., Gelbukh A. (2017) Regression Based Approaches for Detecting and Measuring Textual Similarity. In: Mining Intelligence and Knowledge Exploration. Lecture Notes in Computer Science, vol 10089, pages 144–152. (Cited by: 4) [\[Springer Conference\]](#),
https://link.springer.com/chapter/10.1007/978-3-319-58130-9_14
4. **Sandip Sarkar**, Dipankar Das, and Partha Pakray. 2017. JU_NITM: A classification approach for answer selection in multi-choice question answering system. In Proceedings of the 8th International Joint Conference on Natural Language Processing, Shared Tasks, pages 213–216, Taipei, Taiwan, November 27– December 1, 2017. [\[ACL Anthology\]](#)(Cited by: 4)
<https://www.aclweb.org/anthology/I17-4036>
5. **Sandip Sarkar**, "Detecting Vulnerabilities of Web Application using Penetration Testing", International Conference on Frontiers in Computing and Systems (COMSYS-2020) 13th to 15th January 2020, Organised by Department of Computer Science and Engineering and Electronics and Communication Engineering Jalpaiguri Government Engineering College Jalpaiguri, West Bengal, India [\[Springer Conference\]](#) [\[Poster Presentation\]](#)
6. **Sarkar S.**, Das D., Pakray P., Pinto D. (2021) "A Hybrid Sequential Model for Text Simplification." In: Priyadarshi N., Padmanaban S., Ghadai R.K., Panda A.R., Patel R. (eds) Advances in Power Systems and Energy Management. ETAEERE 2020. Lecture Notes in Electrical Engineering, vol 690. Springer, Singapore. https://doi.org/10.1007/978-981-15-7504-4_4
[\[Springer Conference\]](#) (Cited by: 2)
https://link.springer.com/chapter/10.1007/978-981-15-7504-4_4
7. **Sarkar S.** (2021) "Detecting Vulnerabilities of Web Application Using Penetration Testing and Prevent Using Threat Modeling." In: Mallick P.K., Bhoi A.K., Chae GS., Kalita K. (eds) Advances in Electronics, Communication and Computing. Lecture Notes in Electrical Engineering, vol 709. Springer, Singapore.
[\[Springer Conference\]](#)
https://link.springer.com/chapter/10.1007/978-981-15-8752-8_3
8. **Sarkar S.**, Das D., Pakray P., Pinto D. (2022) "Generating Equations from Math Word Problem Using Deep Learning Approach". In: Mukhopadhyay, S., Sarkar, S., Dutta, P., Mandal, J.K., Roy, S. (eds) Computational Intelligence in Communications and Business Analytics. CICBA 2022. Communications in Computer and Information Science, vol 1579. Springer, Cham.
[\[Springer Conference\]](#)
https://link.springer.com/chapter/10.1007/978-3-031-10766-5_19

9. **Sarkar S.**, Das D., Pakray P., Pinto D. (2022) "Formula Retrieval Using Structural Similarity". CLEF 2022: Conference and Labs of the Evaluation Forum, September 5–8, 2022, Bologna, Italy, Vol-3180, pp. 138–146. [**CEUR Workshop Proceedings**]
<http://ceur-ws.org/Vol-3180/paper-08.pdf>
10. **Sarkar S.**, Das D., Pakray P., Pinto D. (2023) "HIJLI-JU-CLEF at MULTI-Fake-DetectiVE: Multimodal Fake News Detection Using Deep Learning Approach". MULTI-Fake-DetectiVE – MULTImodal Fake News Detection and VERification in EVALITA 2023, Parma (September 7th-8th 2023). [**CEUR Workshop Proceedings**]
<https://ceur-ws.org/Vol-3473/paper33.pdf>
11. **Sarkar S.**, Das D., Pakray P., Pinto D. (2024) "Answering Beyond Borders: A Comparative Analysis of Various BERT Models in Cross-Lingual QA Using XQuAD". 3rd International Conference on Deep Sciences for Computing and Communications. [**Accepted**]
12. Sengupta P., **Sarkar S.**, Das D. (2024) "HIJLI.JU at SemEval-2024 Task 7: Enhancing Quantitative Question Answering Using Fine-tuned BERT Models". NumEval: Numeral-Aware Language Understanding and Generation SemEval-2024 Task 7, co-located with NAACL 2024 in Mexico City, Mexico. [**Accepted**]
13. Singha Roy M., **Sarkar S.** (2024) "Text Summarization Using Deep Learning Approach". [**Submitted**]

JOURNAL PUBLICATIONS

1. Amarnath Pathak, Partha Pakray, **Sandip Sarkar**, Dipankar Das and Alexander Gelbukh, "MathIRs: Scientific Documents Retrieval System", Computacion y Sistemas. Thematic issue: Authorship Analysis (Guest editors: M. Montes, L. Villaseñor), Vol 21, No 2, pp. 253–265, 2017, ISSN: 2007-9737. (Cited by: 19)
[[**ESCI , Scopus indexed & UGC Care List, JCR Impact Factor: 0.6**]]
<http://www.scielo.org.mx/pdf/cys/v21n2/1405-5546-cys-21-02-00253.pdf>
2. **Sandip Sarkar**, Dipankar Das, Partha Pakray and David Pinto, "Developing MCQA Framework for Basic Science Subjects using Distributed Similarity Model and Classification based Approaches", International Journal of Asian Language Processing. Vol. 30, No. 03, 2050015 (2020) [**World Scientific Publisher**] (Cited by: 2)
<https://doi.org/10.1142/S2717554520500150>
3. **Sandip Sarkar**, Dipankar Das, Partha Pakray and David Pinto "Math Word Problem Solving: Operator and Template Techniques with Multi-Head Attention". Computacion y Sistemas. Thematic issue: Authorship Analysis (Guest editors: Grigori Sidorov, Ulises Cortés), Vol. 27, No. 4, 2023, pp. 1075–1088, ISSN: 2007-9737
[[**ESCI , Scopus indexed & UGC Care List, JCR Impact Factor: 0.6**]]
<https://www.cys.cic.ipn.mx/ojs/index.php/CyS/article/view/4769/3624>
4. **Sarkar S.**, Das D., Pakray P., Pinto D. (2024) "Enhancing Math Word Problem Solving with Multi-Head Attention Mechanism". International Journal of Computers and Their Applications, ISSN: 1076-5204. pp 35-48. Vol. 31, No. 1, March 2024, Guest Editor: Ajay Bandi.
[[**Scopus indexed & UGC Care List**]]
<https://isca-hq.org/Documents/Journal/Archive/310104.pdf>
5. **Sarkar S.**, Das D., Pakray P., Pinto D. (2024) "Text Simplification Based Question Answering using Deep Learning Approach". [[**Submitted**]]

PROFESSIONAL ENGAGEMENTS AND ACADEMIC LEADERSHIP (SELECTIVE)

1. **Head of the Department** Computer Science and Application of Hijli College From February, 2020 to June, 2023.
2. **Program Committee member** of "**29th International Conference on Neural Information Processing (ICONIP 2022)**" organized by the Asia Pacific Neural Network Society (APNNS) November 22-26, 2022, New Delhi, India
3. **Program Committee member** for "**International Conference on Natural Language Processing (ICON)**" in the year 2020 & 2023.
4. **Convener of One Day National Webinar** on "**Machine Learning and its Trending Application**" in Hijli College on 8th October, 2020.
5. **Coordinator** in 10 days workshop "**Basic Computer Skills**" organized by Computer Science and Application Department, Hijli College, from 10th February to 20th February, 2022.
6. **Jt. Convener(2021, 2022), Nodal (2023, 2024) and Member (2017-2019)** of **Admission Committee** of Hijli College.
7. **Convener of IT Committee** of Hijli College from 2024 - till date. and Member of IT Committee of Hijli College from 2017-2023.
8. **Team Leader** of Criterion IV of NAAC of Hijli College in 2024.
9. Working as **Head Examiner under the Bhatler College, Nodal Centre of Vidyasagar University** for UG 5th Semester Examination (CBCS) - 2022 and **Head Examiner under the Midnapore City College, Nodal Centre of Vidyasagar University** for UG 3rd Semester Examination (CBCS) - 2022
10. **Member of Organizing committee** of one day **International Seminar** on "**Higher Education in 21st Century Issues and Challenges**" in Hijli College
11. **Technical Committee Member** of "**National Education Policy 2020**" in Hijli College on 2nd and 3rd July 2021
12. **Observer** in the "**Teacher Eligibility Test (TET) - 2022**" Date: 11/12/2022.

PAPER REVIEWER AND SUB-REVIEWER

1. **FLAIRS-30** *May 22-24, 2017*
The 30th International FLAIRS Conference
The Hilton Marco Island Beach Resort and Spa Marco Island, Florida, USA
2. **MIKE 2016** *November 13-19, 2016*
Mining Intelligence and Knowledge Exploration.
Center for Computing Research of the National Polytechnic Institute IPN, Mexico
3. **CSI 2017** *January 19-21, 2018*
International Conference on Social Transformation - Digital Way
Proceedings of the 52nd Annual Convention of Computer Society of India (CSI 2017)
4. **ICON 2020** *December 18-21, 2020*
17th International Conference on Natural Language Processing
Organized by NLP Association, India AI-NLP-ML Group, IIT Patna

5. **ICDSA 2021** *April 10-11, 2021*
 2nd International Conference on Data Science and Applications
 Organized by Jadavpur University, Kolkata
 Certificate - https://drive.google.com/file/d/1vWEDefaAH1B_7Xvp6ksWK1DoHZEgtPwn/view
6. **FIRE 2021** *13th-17th December, 2021*
 13th meeting of Forum for Information Retrieval Evaluation
 Organized by ISI Kolkata, India
7. **ICON 2021** *December 16-19, 2021*
 18th International Conference on Natural Language Processing
 Organized by NIT Silchar
8. **ICDSA 2022** *March 26-27, 2022*
 3rd International Conference on Data Science and Applications
 Organized by Jadavpur University, Kolkata
9. **Innovations in Systems and Software Engineering (ISSE)** *July 2022*
 Springer Journal, Scopus Index
10. **ICDEC-2022** *7th - 9th September 7-9, 2022*
 International Conference on Data, Electronics and Computing
 Departments of Electronics & Communication Engineering, and
 Department of Computer Applications, North-Eastern Hill University
 (A Central University) Shillong, Meghalaya, India
 in collaboration with COMSYS Educational Trust, Kolkata, India
11. **ICONIP 2022** *November 22-26, 2022*
 29th International Conference on
 Neural Information Processing organized by
 Indian Institute of Technology Indore and
 Indian Institute of Information Technology Allahabad
12. **ICON 2023** *October 13-15, 2023*
 20th International Conference on Natural Language Processing
 Organized by Goa University
13. **SemEval-2024** *June 16-21, 2024*
 The 18th International Workshop on Semantic Evaluation
 Organized by SemEval, co-located with NAACL 2024 in Mexico City, Mexico.
14. **ICONDEEPCOM-2024** *24-25 April, 2024*
 3rd International Conference on Deep Sciences for Computing and Communications
 Organized by SRM Institute of Science and Technology, Chennai, India

PROFILE

1. <https://www.scopus.com/authid/detail.uri?authorId=57192392396>
2. https://scholar.google.com/citations?user=tuUfV_UAAAAJ&hl=en.
3. ORCID iD = 0000-0002-0955-5091

REFERENCES

Dr. Dipankar Das

Assistant Professor
Computer Science and Engineering
Jadavpur University, Kolkata
<http://www.dasdipankar.com/>

Dr. Partha Pakray

Associate Professor
Computer Science and Engineering
NIT Silchar
<http://cs.nits.ac.in/partha/>

Dr. David Pinto

Faculty of Computer Science
Benemérita Universidad Autónoma de Puebla
Mexico
<https://index.php/david-eduardo-pinto-avendano/>

Dr. Mridul Sankar Barik

Assistant Professor
Computer Science and Engineering
Jadavpur University
<https://jaduniv.irins.org/profile/124357/>

DECLARATION

I hereby declare that the above-mentioned information is correct up to my knowledge and I bear the responsibility for the above-mentioned particulars.

Date:

Place:

Signature