Dr. SAMAN HINA
Associate Professor, (HEC Approved Supervisor)
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Proactive professional in teaching (undergraduate and postgraduate levels) and research in the field of Artificial Intelligence specifically in Natural Language Processing.

Professional Summary

Associate Professor in Department of Computer Science & IT in NED University of Engineering & Technology **(March 2018 till Date)**

Assistant Professor in Department of Computer Science & IT in NED University of Engineering & Technology (**July 2009 – March 2018)**

Lecturer in Department of Computer Science & IT in NED University of Engineering & Technology **(June 2006-June2009)**

Additional Charges:

OBE Coordinator in Department of Computer Science & IT, NEDUET.
(June 2022- till date)
Manager Research & Development in Office of Research, Innovation and Commercialization.
(May 2016 –June 2017)
Research Associate in Office of Research, Innovation and Commercialization.
(February 2014-May 2016)
Served as Part-time Senior Research Fellow in School of Computing, University of Leeds.
(February 2012- December 2013)

Education

Ph.D. Computing	University of Leeds	2013
MCIT	NED University of Engineering & Technology	2008
BS-Computer Science	Sir Syed University of Engineering & Technology	2005
HSC	PECHS Govt. College	2001
SSC	Metropolitan Academy	1999

Publications

1. ### Journal Papers

S. No.	Title
1.	Paper Title: Fake News Encoder Classifier (FNEC) for Online Published News Related to COVID-19 Vaccines. Journal: Intelligent Automation & Soft Computing, Volume 37, Issue 1, 2023.
2.	Paper Title: A novel global clustering coefficient-dependent degree centrality (GCCDC) metric for large network analysis using real-world datasets. Journal: Journal of Computational Science, Volume 70, 2023.
3.	Paper Title: Prediction of Yarn sales price using data mining techniques. Journal: Industria Textila Journal, 2023.

4.	Paper Title: Analysis of Learner's Sentiments to Evaluate Sustainability of Online Education System during COVID-19 Pandemic. Journal: Sustainability, Volume 14, Issue 8, 2022.
5.	Paper Title: A Cross-Disciplinary Genre Analysis of PhD Theses Abstracts of Pakistan. Journal: Journal of Positive School Psychology, Volume 14, Issue 8, 2022.
6.	Paper Title: A Genre Analysis of Disciplinary Variation In Academic Writing– A Corpus Based Study. Journal: Journal of Positive School Psychology, Volume 6, Issue 10, 2022.
7.	Paper Title: Analysis of LinkedIn Jobs for Finding High Demand Job Trends using Text Processing Techniques. Journal: International Journal of Computer Science & Network Security, Volume 22, Issue 10, 2022.
8.	Paper Title: Digital Pedagogy, Learning, and Assessment amidst COVID-19: Perceptions, Practices, and Prospects. Journal: CORPORUM: Journal of Corpus Linguistics, 2021.
9.	Paper Title: "Anonymization framework for securing protected health information in a complex dataset of medical narratives " Journal: Mehran University Research Journal of Engineering and Technology, Volume 39, Issue 3, 2020.
10.	Paper Title: A Framework for creation of designs of varying complexity for use in weaving/printing of textiles. Journal: International Journal of Computer Science & Network Security, Volume 19, Issue 2019.
11.	Paper Title: Efficient Algorithm for Maximal Clique Size Evaluation Broad Learning of its Relation with Centrality Metrics for Large Dataset Networks. Journal: International Journal of Advanced Computer Science & Applications, Volume 10, Issue 7, 2019.
12.	Paper Title: "Cricket Scrapper: A Tool Developed to Extract Cricket Players Data" Journal: Indian Journal of Science and Technology, Volume 12, Issue 26, 2019.
13.	Paper Title: Cloud Based Remote FPGA Lab Platform: An Application of Internet of Things Journal: Mehran University Research Journal of Engineering and Technology, Volume 37, Issue 4, 2018.
14.	Paper Title: Detection of Sentiment Polarity of Unstructured Multi-Language Text from Social Media Journal: International Journal of Advanced Computer Science & Applications, Volume 9, Issue 7, 2018.
15.	Paper Title: Predicting Student Academic Performance using Data Mining Methods Journal: International Journal of Computer Science & Network Security, Volume 17, Issue 5, 2017.
16.	Paper Title: Business Intelligence Solution for Food Industry Journal: Journal of Basic and Applied Sciences, Volume 13, 2017.
17.	Paper Title: Analyzing Diabetes datasets Using Data mining tools (WEKA) Journal: Journal of Basic and Applied Sciences, Volume 13, 2017.
18.	Paper Title: Awareness Survey on Anonymisation of Protected Health Information in Pakistan Journal: International Journal of Advanced Computer Science & Applications, Volume 8, Issue 5, 2017.
19.	Paper Title: Urdu Documents Classification using Naïve Bayes Journal: Indian Journal of Science and Technology, Volume 10, 2017. (ISI-indexed)
20.	Paper Title: Secure Information Exchange of Patient's Health Records Using Anonymization Techniques

	Journal: International Journal of Computer Science & Network Security, Volume 17, Issue 5, 2017.
21.	Paper Title: Financial Market Prediction using Google Trends Journal: International Journal of Advanced Computer Science and Applications, Volume 8 Issue 7, 2017.
22.	Paper Title: Aspect Based Sentiment Analysis Framework using data from social media network Journal: International Journal of Computer Science & Network Security, Volume 17, Issue 5, 2017.
23.	Paper Title: Prioritization of diseases in patient's consultation notes using SNOMED CT Journal: International Journal of Computer Science & Network Security, Volume 17, Issue 7, 2017.
24.	Paper Title: "A Novel Approach for features extraction towards classifying Normal and Special Children Emotions in Urdu." Journal: International Journal of Computer Science & Network Security, Volume 17, Issue 7, 2017.
25.	Paper Title: SnoMedTagger: A Semantic Tagger for Medical Narratives Journal: *International Journal of Computational Linguistics and Applications*, IJCLA VOL. 4, NO. 2, JUL-DEC 2013, PP. 81–99
26.	Paper Title: Semantic Tagging of Medical Narratives with Top Level Concepts from SNOMED CT Healthcare Data Standard Journal: *International Journal of Intelligent Computing Research (IJICR)*, Volume 1, Issue 3, 2010.

2. Conference/Workshop papers

S. No	Details
1	Paper title: A brief analysis of learners' sentiments on MOOC forums using Natural Language Processing techniques – A comparison of Lexicon vs Transformers-based approaches. Conference details: 3rd International Conference on Innovation in Computer Science & Software Engineering, 2022.
2	Paper title: Evaluation of descriptive answers of open ended questions using NLP techniques. Conference details: 4th International Conference on Computing & Information Sciences, 2021.
3	Paper title: Real or Fake News? Can you guess? Conference details: 2nd International Conference on Innovation in Computer Science & Software Engineering, 2018.
4	Paper title: GATEway to the Cloud Case Study: a privacy-aware environment for Electronic Health Records research. Conference details: IEEE MobileCloud2013 Industry Track in conjunction with SOSE 2013 Conference.
5	Paper Title: Identification, classification and anonymisation of 'protected health information' in real-time medical data for research purposes Conference details: The 23rd Meeting of Computational Linguistics in the Netherlands (CLIN 2013).
6	Paper Title: Automated analysis of domain specific corpus in healthcare domain: For non-domain users Conference details: presented in IVACS Conference (2011), Leeds.
7	Paper Title: Enriching a healthcare corpus with SNOMED CT Standard medical semantic tags. Conference details: presented in Corpus Linguistics Conference (2011).

8	Paper Title: Extracting the concepts in Clinical Documents using SNOMED-CT and GATE. Conference details: Fourth i2b2/VA Shared-Task and Workshop Challenges in Natural Language Processing for Clinical Data (2010).
9	Paper Title: Secure Information Extraction from Clinical Documents Using SNOMED CT Gazetteer and Natural Language Processing Conference details: 5th International Conference for Internet Technology and Secured Transactions (ICITST-2010).

3. **Patents**

- Granted Patent# 143422: A washing machine for delicate and efficient washing of a broad range of laundry loads.

- Granted Patent# 143423: A washing machine for efficient and crease-free washing of tubular or stiff articles such as rugs, floor mats and carpets.

4. **Book Chapter**

Hina, S., Asif, R., & Kumar, P. (2022). "E-health natural language processing". *Healthcare Monitoring and Data Analysis Using IoT: Technologies and Applications*, 167.

5. **Workshops/Talks**

- Invited as speaker to give talk on "Optimisation of Pedagogical methods for deaf learners in Computer Science" in International Conference on Higher Education for Deaf in Pakistan, 2022.
- Conducted workshop on "Awareness of NLP applications using tools" at Humanities department of NED University, February, 2020.
- Conducted workshop on "Natural Language Processing using General Architecture for Text Engineering-GATE tool", in 5th Conference on Language & Technology at DHA Suffa University, November 2014.
- Invited as Guest speaker to give talk on "Understanding Challenges of Semantics and Sentiment Analysis of Unstructured Text", in 1st Two Day International Conference on Theory, Method, and Practice in Corpus Linguistics, Air University, April, 2019.
- Conducted hands-on workshop on "Natural Language Processing and its applications" at Usman Institute of Technology, March, 2017.
- Member of organizing committee of Post Graduate Research workshop at University of Leeds, 2010.

6. **Research Activities**
- Reviewer of International Journal of Advanced Computer Science & Applications

- Supervised 3 Ph.D. projects.

    1. Topic: "Aspect Based Sentiment Analysis using Real Time Social Media Data", 2019.

    2. Topic: "Fuzzy Social Network Analysis Techniques and Applications in Business Intelligence", 2020.

    3. Topic: "A concept-centric approach for Aspect Based Sentiment Analysis (ABSA) using Deep Learning and Knowledgebase", 2022.

- Four Ph.D. projects under supervision (Details can be provided on request).

- Supervised 20+ MS level research projects (Details can be provided on request).

7. **Research Fundings**

   a. MoST research grant, "A concept-centric approach for Aspect Based Sentiment Analysis (ABSA) using Deep Learning and Knowledgebase" (PKR 1.5 Million), 2019-2021.

   b. MoST research grant, "Aspect Based Sentiment Analysis using Real Time Social Media Data" (PKR 2.475 Million), 2016-2018.

   c. NED Research funds were granted for three projects, PKR. 3.0 Million (1.0 Million each), 2018-2020.

   d. Awarded 2.0 Million for two Ph.D. Research Projects (1.0 Million each) by NED Research funds, 2023.

8. **Courses Taught**

   a. Data Warehousing and Mining

   b. System Analysis and Design

   c. Object Oriented Concepts and Programming

   d. Software Engineering

   e. Design Patterns

   f. Advanced Natural Language Processing

9. **Additional Activities**

   - Completed 2-month training course on "Teaching in Higher Education" from Harvard University, USA, 2019.
   - Trained a batch of faculty members on "Higher Education Teaching & Learning", 2019.
   - Provided mentorship to young faculty members in the context of teaching, career growth and research under the NED Mentorship Initiative (2019-2020).
   - Conducted training on 'OBE framework' and 'Complex Computing Activities' in department of Computer Science & IT, NEDUET, 2022.
   - Conducted training on "Teaching Case Studies" to university teachers, 2023.

10. **Professional Affiliations**

    - Professional Member, Association for Computing Machinery (ACM)
    - NEDAN
    - Aligarh Old Boys Association

References will be provided on request.