Dr. Rakesh Kumar
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AREAS OF INTEREST:

- Natural Language Processing   Machine Translation   Digital Image Processing

EDUCATIONAL QUALIFICATION:

- Ph.D. (Computer Science) from Punjabi University, Patiala, Punjab

- Qualified NET-JRF from UGC in June 2012

- MCA. from IGNOU New Delhi in 2009

- Graduation from GNDU University Amritsar, Punjab in 2005

WORK EXPERIENCE:

- Presently working as an Assistant Professor at University College Miranpur, A Constituent College of Punjabi University Patiala (Since Aug. 2013)

- Worked as an Assistant Professor at Bebe Nanaki University College Mithra, A Constituent College of GNDU Amritsar (Session 2011-2013)

- Worked as a Lecturer at BUC College Batala (Session 2009-2011)

LIST OF PUBLICATIONS

International Journals:

1. **Rakesh Kumar Attar*,** Vishal Goyal, and Lalit Goyal, "State-of-the-Art of Automation in Sign Language: A Systematic Review" ACM Trans. Asian Low-Resour. Lang. Inf. Process. Vol. 22, Issue 4, Article 94 (April 2023), pp. 1-80. https://doi.org/10.1145/3564769 **ISSN:2375-4699**

2. **Rakesh Kumar Attar***, Vishal Goyal, Lalit Goyal, "Development of Airport Terminology based Synthetic Animated Indian Sign Language Dictionary" in Journal of Scientific Research, Vol. 66, Issue 5, October 2022. pp. 88-94 http://dx.doi.org/10.37398/JSR.2022.660512 **ISSN 0447-9483**

3. **Rakesh Kumar***, Vishal Goyal, Lalit Goyal, "Comparative Analysis of Automatic Sign Language Generation Systems" in Journal of Scientific Research, Vol. 65, Issue 5, July 2021, pp. 226-235, DOI: 10.37398/JSR.2021.650528 **ISSN 0447-9483**

4. **Rakesh Kumar***, "Ambiguity Issues in Different Applications of Natural Language Processing" International Journal of Engineering Sciences, Vol. 28, 2018. **ISSN: 2320-0332**

5. **Rakesh Kumar***, "A Survey of Question Answering Systems Using Techniques of Natural Language Processing" International Journal of Engineering Sciences, Vol. 27, 2018. **ISSN: 2320-0332**

6. Narindar Singh*****, **Rakesh Kumar**, "Network Complexity Reduction using Mobile Agents" in UGC approved International Journal of Information Sciences and Application, Vol. 2, Issue 2, 2010. **ISSN: 0974-2255**

International Conferences:

1. **Rakesh Kumar Attar***, Vishal Goyal, Lalit Goyal, "Open Issues and Challenges in Automatic Sign Language Translation Systems" AIP Conference Proceedings 2455, 040003 (2022); https://doi.org/10.1063/5.0100903.

2. **Rakesh Kumar***, Vishal Goyal, Lalit Goyal, "Airport Announcement System for Deaf" in Proceedings of the 17th International Conference on Natural Language Processing (ICON): System Demonstration, pages 37–39, Patna, India, December 18 - 21, 2020.

3. **Rakesh Kumar***, Vishal Goyal, Lalit Goyal, "Railway Stations Announcement System for Deaf" in Proceedings of the 17th International Conference on Natural Language Processing (ICON): System Demonstration, pages 40–42, Patna, India, December 18 - 21, 2020.

International Book Chapters

1. **Rakesh Kumar Attar***, Vishal Goyal, Lalit Goyal, "Technologies for Hearing Impaired People Using Indian Sign Language Synthetic Animations" in Advances in Data Science Driven Technologies: Computer Assistive Technologies for Physically and Cognitively Challenged Users (2023) 2: 98. https://doi.org/10.2174/9789815079159123020007

2. **Rakesh Kumar Attar***, "The Emergence of Natural Language Processing (NLP) Techniques in Healthcare AI" in Artificial Intelligence for Innovative Healthcare Informatics (AIIHI), Springer, 2022. https://doi.org/10.1007/978-3-030-96569-3_14

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1. Software Copyright for **Automatic Conversion Tool for Public Announcements at Airports in Indian Sign Language Synthetic Animations** in February 2021 with Registration No. SW-14159/2021.

2. Software Copyright for **Automatic Conversion Tool for Public Announcements at Railway Stations in Indian Sign Language Synthetic Animations** in March 2021 with Registration No. SW -14337/2021.

3. Software Copyright for **SiGML Code for English Words used in Announcements for Hearing Impaired People at Railway Stations of India** in April 2021 with Registration No. SW-14347/2021.

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