



## Soumya Priyadarsini Panda, Ph.D.

**Designation** : Sr. Assistant Professor

**Department** : Department of Computer Science and Engineering  
(JOINED THE INSTITUTE IN 2016)

**Contact** : +91 8260333609 - 278 (O)

**Email** : soumya.panda@silicon.ac.in

### RESEARCH INTERESTS

- ✓ Natural Language Processing
- ✓ Machine Learning
- ✓ Artificial Intelligence
- ✓ Speech Processing

### Academic Qualifications

Ph. D. (CSE), Siksha 'O' Anusandhan University, India

M. Tech. (CSE), Biju Patnaik University of Technology, India

### Teaching Experience/Industrial Experience/Research Experience

- ✓ 6 years

## PUBLICATIONS

### JOURNALS:

1. **S. P. Panda**, A. K. Nayak, and S. C. Rai, "A Survey on Speech Synthesis Techniques in Indian Languages", *Multimedia Systems, Springer*, Vol. 26, pp. 453–478, 2020.
2. **S. P. Panda**, V. Pandit, S. Chaturvedi, R. Kumar, and A. Das, "Natural Language Query Based Question Answering System", *International Journal of Engineering and Advanced Technology*, Vol. 9, No. 3, pp. 2977-2981, 2020.
3. **S. P. Panda**, V. Behera, A. Pradhan, and A. Mohanty, "A Rule-based Information Extraction System", *International Journal of Innovative Technology and Exploring Engineering*, Vol. 8, No. 9, pp. 1613-1617, 2019.
4. **S. P. Panda** and A. K. Nayak, "A Context-based Numeral Reading Technique for Text to Speech Systems", *International Journal of Electrical and Computer Engineering*, vol. 8, no. 6, pp. 4533-4544, 2018.

5. **S. P. Panda** and A. K. Nayak, "A Waveform Concatenation Technique for Text-To-Speech Synthesis", *International Journal of Speech Technology*, Springer, vol. 20, no. 4, pp. 959-976, 2017.
6. **S. P. Panda** and A. K. Nayak, "Modified Rule-Based Concatenative Technique for Intelligible Speech Synthesis in Indian Languages", *Advanced Science Letters*, vol. 22, no 2, pp. 557-567, 2016.
7. **S. P. Panda** and A. K. Nayak," Automatic Speech Segmentation in Syllable Centric Speech Recognition System", *International Journal of Speech Technology*, Springer, vol. 19, no. 1, pp. 9-18, 2016.
8. **S. P. Panda**, A. K. Nayak, and S. Patnaik, "Text to Speech Synthesis with an Indian Language Perspective, *International Journal of Grid and Utility Computing*, Vol. 6, No. 3/4, pp. 170-178, 2015.
9. **S. P. Panda** and A. K. Nayak, "An Efficient Model for Text-to-Speech Synthesis in Indian Languages", *International Journal of Speech Technology*, Springer, Vol. 18, No. 3, pp. 305-315, 2015.

#### CONFERENCE PROCEEDINGS:

1. **S. P. Panda** and N. Chandra, "A Visual Question Answering System using YOLO Model", In proc: 19th OITS International Conference on Information Technology (OCIT), IEEE, pp. 256-260, 2022.
2. **S. P. Panda** and K. Singh, "Automatic Speaker Verification Under Spoofing Attack", In proc: 19th OITS International Conference on Information Technology (OCIT), IEEE, pp. 196-199, 2022.
3. N. Chandra and **S. P. Panda**, "A Human Intruder Detection System for Restricted Sensitive Areas", In proc: 2nd IEEE International Conference on Range Technology (ICORT), pp. 1-4, 2021.
4. A. Ranjan, and **S. P. Panda**, "A Semantic-Based Information Retrieval System", In proc: International Conference on Communication, Circuits, and Systems, Springer, pp. 517-523, 2021.
5. **S. P. Panda**, and J. P. Mohanty, "A Domain Classification-based Information Retrieval System", In proc: IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering, IEEE, pp. 122-125, 2021.
6. **S. P. Panda**, R. Kumar, V. K. Pandit, A. Das, S. Chaturvedi, "Natural Language Query based Information Extraction System", In proc: CSI Annual convention, International conference on Digital Democracy - IT for Change, pp. 1-6, Jan 2020.
7. D. Mahapatra, C. Maharana, **S. P. Panda**, J. P. Mohanty, A. Talib, and A. Mangaraj, "A Fuzzy-Cluster based Semantic Information Retrieval System", In proc: 4<sup>th</sup> International Conference on Computing Methodologies and Communication (ICCMC-2020), IEEE, pp. 675-678, 2020.
8. **S. P. Panda**, "Intelligent Voice-based Authentication System", In proc: 3<sup>rd</sup> International conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud), IEEE, pp. 757-760, 2020.
9. **S. P. Panda**, A. K. Nayak, "Spectral Smoothing based Waveform Concatenation Technique for Speech Quality Enhancement in Text to Speech Systems", In proc: 3<sup>rd</sup> International Conference on Advanced Computing and Intelligent Engineering, Springer, pp. 425-432, 2020.

10. A. Pradhan, V. Behera, A. Mohanty, and **S. P. Panda**, "A Voice-based Information Extraction System" In proc: *3<sup>rd</sup> International Conference on Smart Computing & Informatics (SCI2018)*, Springer, pp. 593-602, 2019.
11. **S. P. Panda**, "Automated Speech Recognition System in Advancement of Human-Computer Interaction", in proc: *International Conference on Computing Methodologies and Communication (ICCMC 2017)*, IEEE, pp. 302-305, 2018.
12. **S. P. Panda** and A. K. Nayak, "Vowel Onset Point based Waveform Concatenation Technique for Intelligible Speech Synthesis", in proc: *International Conference on Computing Methodologies and Communication (ICCMC 2017)*, IEEE, pp. 622-626, 2018.
13. **S. P. Panda** and A. K. Nayak, "A Rule-based Text Tokenization Technique for Text to Speech Conversion in Indian Languages", in proc: *2<sup>nd</sup> International Conference on Inventive Computation Technologies (ICICT 2017)*, pp. 976-980, 2017.
14. **S. P. Panda** and A. K. Nayak, "A Generic Model for Text to Speech Synthesis in Indian Languages", *4<sup>th</sup> National Language Conference*, pp. 1-7, 2017.
15. **S. P. Panda** and A. K. Nayak, "A Novel Approach to Multilingual Speech Synthesis in Indian Languages", *7<sup>th</sup> national conference on Indian Language Computing*, pp.1-6, 2017.
16. **S. P. Panda** and A. K. Nayak, "A Pronunciation Rule-based Speech Synthesis Technique for Odia Numerals", in proc: *International Conference on Computational Intelligence in Data Mining*, Springer, Vol. 410, pp. 483-491, 2016.
17. **S. P. Panda** and A. K. Nayak, "An Indian Language Speech Synthesis System for Enhancing Lifestyle of Visually or Vocally Challenged People", in proc: *International Conference on Medical Informatics*, pp. 1-6, 2016.
18. **S. P. Panda** and A. K. Nayak, "A Text to Speech System in Odia Language", *3<sup>rd</sup> National Language Conference*, pp.1-7, 2016.
19. **S. P. Panda** and A. K. Nayak, "A Rule based Concatenative Approach to Speech Synthesis in Indian Language Text to Speech Systems", in proc: *International Conference on Intelligent Computing Communication and Devices*, Springer, Vol. 309, pp. 523-531, 2015.
20. **S. P. Panda** and A. K. Nayak, "Advancement of Speech Technologies in Odia Language for Human Development", *2<sup>nd</sup> National Language Conference*, pp. 145-152, 2015.
21. **S. P. Panda** and A. K. Nayak, "Modified Rule-Based Concatenative Technique for Intelligible Speech Synthesis in Indian Languages", in Proc: *National Seminar on "Science & Technology for Human Development*, pp. 173, 2014.
22. **S. P. Panda** and A. K. Nayak, "Integration of Fuzzy If-Then Rule with Waveform Concatenation for Text to Speech Synthesis in Odia", in proc: *13<sup>th</sup> International Conference on Information Technology*, IEEE, pp.88-93, 2014.