

## Faculty Profile

Name : Dr. Deepti Deshwal  
Designation : Assistant Professor  
Qualifications : Ph.D., M.Tech, B.E.  
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Area of Interest/Specialization: Machine Learning, Artificial Intelligence,  
Speech Processing  
Experience : 14 years 9 months



### Key Publications

1. Deshwal, Deepti, Sangwan, Pardeep and Kumar, Divya, 2019. Feature extraction methods in language identification: a survey. *Wireless Personal Communications, Springer* 107(4), pp.2071-2103. (SCI-E indexed, Impact Factor: 1.67)
2. Deshwal, Deepti, Sangwan, Pardeep and Kumar, Divya, 2020. "A Language Identification System using Hybrid Features and Back-Propagation Neural Network". *Applied Acoustics, Elsevier*, 164, p.107289. (SCI-E Indexed, Impact Factor: 2.639)
3. Sangwan Pardeep, Deshwal Deepti, Kumar Divya, Bhardwaj Saurabh, 2020 "Isolated word language identification system with hybrid features from a deep belief network". *International Journal of Communication Systems, Wiley*; e4418: <https://doi.org/10.1002/dac.4418>. (SCI-E Indexed, Impact Factor: 2.047)
4. Sangwan, Pardeep, Deshwal, Deepti, and Dahiya, Naveen, 2020. "Performance of a Language Identification System using hybrid features and ANN learning algorithms". *Applied Acoustics, Elsevier*, 175, p.107815. (SCI-E Indexed, Impact Factor: 2.44)
5. Deshwal, Deepti, Sangwan Pardeep, and Dahiya Naveen, 2021 "How will COVID-19 impact renewable energy in India? Exploring challenges, lessons and emerging opportunities." *Energy Research & Social Science, Elsevier* 77: 102097. (SSCI Indexed, Impact Factor: 6.834)
6. Dahiya, Aman, Anand, Rohit, Sindhwani, Nidhi and Deshwal, Deepti, 2021. Design and Construction of a Low Loss Substrate Integrated Waveguide (SIW) for S Band and C Band Applications. *MAPAN*, pp.1-9. (SCI-E Indexed, Impact Factor: 1.009)

### **Papers presented in Conferences**

1. Deshwal, Deepti, Sangwan, Pardeep and Kumar, D., 2020, November. A Structured Approach towards Robust Database Collection for Language Identification. In *2020 21st International Arab Conference on Information Technology (ACIT)* (pp. 1-6). **IEEE**.
2. Deshwal, Deepti, Sangwan, Pardeep and Kumar, Divya, 2020. Language Identification Performance Evaluation Using Spectral Processing. Available at *SSRN 3734808*.
3. Dahiya, Aman and Deshwal, Deepti, 2021. Design Fundamentals: Iris Waveguide Filters Versus Substrate Integrated Waveguide (SIW) Bandpass Filters. In *Proceedings of International Conference on Artificial Intelligence and Applications* (pp. 195-202). **Springer**, Singapore.

### **Awards and Recognitions**

1. Received Research excellence award for outstanding contribution in research in 2019 by Maharaja Surajmal Institute of Technology.

### **Patent/Copyright**

1. Patent titled "An automatic Sanitizing Device" granted on 10<sup>th</sup> June, 2020.
2. Patent titled "Design and development of Microstrip patch antenna for optimized radiation", December, 2020.

### **Book Chapter/Books published**

1. Deshwal, Deepti, and Pardeep Sangwan. "A Comprehensive Study of Deep Neural Networks for Unsupervised Deep Learning." *Artificial Intelligence for Sustainable Development: Theory, Practice and Future Applications*. Springer, Cham, 2021. 101-126.

### **Other Contributions**

1. Reviewer of various journals of repute IEEE Access, Circuit Systems and Signal Processing (Springer), Expert Systems and Applications, Energy Sustainability and Society, MAPAN.