

Author's Publications

Patent

- **G. Modanwal** and K. Sarawadekar, “A method and system for interacting with computers or other electronic systems based on dactylogy and reduced shape signature,” Indian Patent 4114/DEL/2015, Published on 16 June 2017.

International Journals

- **G. Modanwal** and K. Sarawadekar, “Towards hand gesture based writing support system for blinds,” *Pattern Recognition*, vol. 57, pp. 50–60, 2016.
- **G. Modanwal** and K. Sarawadekar, “A new dactylogy and interactive system development for blind-computer interaction,” *IEEE Transactions on Human-Machine Systems*, vol. 48, no. 2, pp. 207–212, 2018.
- **G. Modanwal** and K. Sarawadekar, “A robust wrist point detection algorithm using geometric features,” *Pattern Recognition Letters*, vol. 110, pp. 72–78, 2018.

International Conferences

- **G. Modanwal** and K. Sarawadekar, “Development of a new dactylology and writing support system especially for blinds,” in *Proceedings of 13th Conference on Computer and Robot Vision (CRV)*. Victoria, British Columbia: IEEE, 2016, pp. 362–369.
- **G. Modanwal**, P. Mishra, and K. Sarawadekar, “A robust algorithm for hand-forearm segmentation,” in *Proceedings of the International Conference on Image and Graphics Processing*. Hong Kong: ACM, 2018, pp. 102–105.
- **G. Modanwal** and K. Sarawadekar, “A gesture elicitation study with visually impaired users,” in *Proceedings of the 20th International Conference on Human-Computer Interaction*. Las Vegas, Nevada, USA: Springer, 2018, pp. 54–61.

Invited Article

- **G. Modanwal** and K. Sarawadekar, “Enabling blind and visually impaired through users-developed dactylology,” *IEEE India Council Newsletter*, vol. 13, Jan-Mar Issue, 2018, pp. 40–43.

Awards and Accolades

1. **Honoured by the President of India** as a part of “In-Residence Programme” held in Rashtrapati Bhavan, New Delhi, 18-24 June 2016.
2. Selected among **India’s top 51 innovation** by Confederation of Indian Industry (CII) in partnership with the Department of Science and Technology (DST) and All India Council for Technical Education (AICTE), Government of India, 18-19 October 2016.
3. Winner of **Navkriti Medal 2015**. The Medal is given by Director IIT (BHU), Varanasi to recognize innovations for their contributions to improve the standard of living, and quality of life through technological innovation.
4. Winner of **Institute Innovation Award-2016** for best innovative research contribution at IIT (BHU), Varanasi.
5. First prize in the **Model Presentation** event (Ph.D. category) in “Institute Day 2016” celebrated at IIT (BHU), Varanasi during 2-3 April 2016.