

List of Publications

Journal Publications

1. **Das, S.** and Sahu, P.P., 2023. CeO₂ NPs Based Capacitive Sensor for Quantification of Limonin in Citrus Limetta Juice. *IEEE Sensors Journal*, 23(7), pp.7591-7598
2. **Das, S.**, Panicker, N.J., Rather, M.A., Mandal, M. and Sahu, P.P., Green synthesis of cerium oxide nanoparticles using Dillenia indica aqueous extract and its anti-oxidant activity. *Bulletin of Materials Science*, 46(1): pp.1-7,2023
3. **Das, S.**, and Sahu, P. P. A novel electrochemical interdigitated electrodes sensor for limonin quantification and reduction in citrus limetta juice. *Food Chemistry*, 381,132248, 2022.
4. Gupta, A. K., **Das, S.**, Sahu, P. P., Mishra, P. Design and development of IDE sensor for naringin quantification in Pomelo juice: An indicator of citrus maturity. *Food Chemistry*, 377,131947, 2022.
5. Narzary, R., Pukan, P., **Das, S.**, Sahu, P. P. "Flexibility of Key Electronic and Optical Properties of Reduced Graphene Oxide through Its Controlled Synthesis." *IEEE Transactions on Electron Devices*, 69(11): 6400-6407, 2022.
6. Sahu, P.P., Sarma, G., **Das, S.** and Borkakoty, B. Rapid diagnosis of COVID-19 using disposal paper capacitive sensor. *Analytica Chimica Acta*, p.341500, 2023.

Book Chapters:

1. **Das S.**, Sahu PP. Green Synthesis of Cerium Oxide Nanoparticles and Its Recent Electrochemical Sensing Applications: A Study. Handbook of Sustainable Materials: Modelling, Characterization, and Optimization. 2023 Mar 31:177-92
2. **Das, S.**, Phukan, P., Narzary, R., &Sahu, P.P, "Performance Estimation and Comparison of CNP based Interdigitated Electrodes Resistive Sensor with Normal Two Electrode Resistive Sensor Structure", Advances in Physics and Applications (APA-2020), 2020. (ISBN: 978-93-91953-06-5).
3. Narzary.R, Phukan.P, **Das. S.** and Sahu.P.P An efficient and low-cost methodology for the fabrication of ZnO/p-Silicon heterostructure for application in heterojunction solar cell. Applied Physics Application 2020 (ISBN: 978-93-91953-06-5).

4. Phukan.P, Narzary.R, **Das. S**, and Sahu.P.P, Characterization of Ultraviolet Photodetector based on TiO₂ nanoparticle with Au Schottky contact. Applied Physics Application 2020. (ISBN: 978-93-91953-06-5)

Conferences:

1. **Das, S.**, Das, S. R. and Sahu, P. P. Detection of Limonin for the measurement of delayed bitterness of citrus fruit juice using Magnesium silicate based capacitive sensor *International Conference on Sustainable Approaches in Food Engineering and Technology (SAFETY-2021)* organized by Dept of FET, Tezpur University University of Georgia, Georgia, (US), on 24-25th June 2021. (best paper (poster) award by Springer Nature)
2. **Das, S.** , Sahu, P. P. Recovery and identification of bioactive limonin from Pomelo (*Citrus grandis*) seeds using organic solvents, *1st International Conference on Evolving Materials and Nanotechnology for Sustainable Development (EMNSD-2020)* organized by CIT Kokrajhar, 15-16th December 2020.
3. **Das, S.**, Sahu, P. P. Optimization of Polystyrene copolymer based Interdigital Capacitive Sensor structure observing its response to limonoid of citrus fruits, *5th International Conference on Emerging Electronics, (IEEE-ICEE 2020)* organized by IIT Delhi, India 26th - 28th November, 2020.
4. **Das, S.** , Sahu, P. P. Determination of Maturity Level of Citrus Limetta Using Mamdani Fuzzy Inference System, *3rd national conference on recent advances in science and technology*, organized by Assam Science and Technology University, Assam, 17-19th August, 2020.