List of publications

In referred journal:

1. **Hatiboruah, D.**, Das, T., Chamuah, N., Rabha, D., Talukdar, B., Bora, U., Ahamad, K. U., and Nath, P. Estimation of trace-mercury concentration in water using a smartphone. Measurement, 154:107507, 2020.

2. **Hatiboruah, D.**, Devi, D. Y., Namsa, N. D., and Nath, P. Turbidimetric analysis of growth kinetics of bacteria in the laboratory environment using smartphone. Journal of Biophotonics, 13(4):e201960159, 2020.

3. **Hatiboruah, D.**, Talukdar, B., Ahamad, K. U., and Nath, P. Dual mode smartphone based sensing for accurate estimation of sulphate and chloride in water. IEEE Sensors Journal, 21(17):19314–19321, 2021.

4. **Hatiboruah, D.**, Biswas, S., Sarma, D., and Nath, P. A smartphone-based photometric and fluorescence sensing for accurate estimation of zinc ion in water. Sensors and Actuators A: Physical, 341:113586, 2022.

5. Rabha, D., Biswas, S., **Hatiboruah, D.**, Das, P., Rather, M. A., Mandal, M., and Nath, P. An affordable, handheld multimodal microscopic system with onboard cell morphology and counting features on a mobile device. Analyst, 2022.

6. Sarma, D., Biswas, S., **Hatiboruah, D.**, Chamuah, N., and Nath, P. 100 gsm paper as sers substrate for trace detection of pharmaceutical drugs in aqueous medium. Journal of Physics D: Applied Physics, 2022.

7. Shukla, S., Sah, A. N., **Hatiboruah, D.**, Ahirwar, S., Nath, P., and Pradhan, A. Design, fabrication and testing of 3d printed smartphone-based device for collection of intrinsic fluorescence from human cervix. Scientific Reports, 12(1): 1–9, 2022.

Conferences

1. Das, T., **Hatiboruah, D.**, Chamuah, N., Hussain, I., Bora, U., and Nath, P. Accurate estimation of mercury level concentration in water using smartphone. Optical Sensing and Detection V, volume 10680, pages 355–361. SPIE-Europe, 2018.

2. Yumnum, M., **Hatiboruah, D.**, Nath, P., and P, Misra. Development of smartphonebased sensor for monitoring fish spoilage during storage at room temperature. SAFETy -2021. Tezpur university (IN) University of Georgia (US), 2021.

3. **Hatiboruah, D.** and Nath, P. A compact smartphone based analytical device with dual spectrometric sensing modes. National conference on emerging trends in physics. Tezpur university (IN), 2021.

Patents:

1. **Hatiboruah, D.**, Rabha, D., and Nath, P. Design of a universal holder for sensing and imaging studies in all variant smartphones, 2022. Indian Patent application number: 202131060631