

List of publications

In referred journal:

1. **Rabha, D.**, Biswas, S., Chamuah, N., Mandal, M., & Nath, P. Wide-field multi-modal microscopic imaging using smartphone. *Optics and Lasers in Engineering*, 137: 106343, 2021.
2. **Rabha, D.**, Sarmah, A., & Nath, P. Design of a 3D printed smartphone microscopic system with enhanced imaging ability for biomedical applications. *Journal of microscopy*, 276(1): 13-20, 2019.
3. **Rabha, D.**, Biswas, S., Hatiboruah, D., Das, P., Rather, M., Mandal, M., & Nath, P. An affordable, handheld multimodal microscopic system with onboard cell morphology and counting features on a mobile device. *Analyst*, 2022.
4. **Rabha, D.**, Rather, M. A., Mandal, M., & Nath, P. Programmable illumination smartphone microscopy (PISM): A multimodal imaging platform for biomedical applications. *Optics and Lasers in Engineering*, 151: 106931, 2022.
5. **Rabha, D.**, & Nath, P. Color-multiplexed OLED display illumination for one-shot multimodal imaging on a smartphone and laboratory optical microscope. (submitted).
6. Hatiboruah, D., Das, T., Chamuah, N., **Rabha, D.**, Talukdar, B., Bora, U., ... & Nath, P. Estimation of trace-mercury concentration in water using a smartphone. *Measurement*, 154, 107507, 2020.

Conference presentations:

1. **Rabha, D.** & Nath, P. A 510X optical microscope design using a smartphone. *International Conference on Microscopy and XXXIX Annual Meeting of EMSI 2018*, 18th to 20th July, 2018.
2. **Rabha, D.** & Nath, P. Design of a 3D-printed mini-microscopic imaging system on cell-phone camera for low-cost monitoring applications. *National Conference on Emerging Trends in Physics (NCETP 2021)*, 16th of June, 2021, Dept. of Physics, TU.
3. **Rabha, D.** & Nath, P. A versatile and inexpensive 3D-printed multi-contrast imaging system for high resolution and large field-of-view microscopy applications on a smartphone camera. *inSCIgnis-One Day National Symposium*, 1st March, 2022, Dept. of Physics, TU.

Patents:

1. **Rabha, D.** & Nath, P. Methods and apparatus of multi-modal microscopic imaging on a smartphone and OLED display illumination. *Indian Patent Application no. (Provisional): 202131010963*; Dated 15-03-2021.