Faculty Profile

Name: Dr.Shubhro

Designation: Assistant Professor, Dept. of ECE

Teaching Areas: Semiconductor devices, Microprocessor, Wireless Communication

Research Interests: Nano fabrication and design, low power circuit design, and fabrications of memristors for neuromorphic applications.

Education:

B.Tech (ECE, ICFAI Tech),

M.Tech (Electronics, Pondicherry University),

PhD (ECE, NIT Agartala), Post Doc. (Inje University)

Professional Experience: [Total years]: 3.6 years

Research / Selected Publications:

- ✓ AlaaDdin Al-Shidaifat, **Shubhro Chakrabartty*,** Sandeep Kumar, Suvojit Acharjee and Hanjung Song, Novel Characterization and Performance Measurement of Memristor Devices for Synaptic Emulators in Advanced Neuro-Computing, Micromachines 2020, 11(1), 89. (IF= 2.22)
- ✓ AlaaDdin Al-Shidaifat, **Shubhro Chakrabartty**, Sandeep Kumar, Hanjung Song, "A Conceptual Investigation at the Interface between Wireless Power Devices and CMOS Neuron IC for Retinal Image Acquisition" Applied Sciences, 2020, 10, 6154. (IF=2.47)
- ✓ Mainak Biswas, Luca Saba, **Shubhro Chakrabartty**, Jasjit Suri, Hanjung Song Two-stage artificial intelligence model for jointly measurement of atherosclerotic wall thickness and plaque burden in carotid ultrasound: A screening tool for cardiovascular/stroke risk assessment" Computers in Biology and medicine, 123, 103847, August, 2020. (IF=3.434)
- ✓ **Shubhro Chakrabartty**, Suvojit Acharjee, AlaaDdin Al-Shidaifat, Hanjung Song "Gd- doped HfO2 memristor device, evaluation robustness by Image noise cancellation and edge detection filter for Neuromorphic computing" IEEE Access, 7, 157922 – 157932, 2019. (IF=3.745).
- ✓ ***Shubhro Chakrabartty***, Md Iqbal Alam, Saumya Bhagat, Mohammed A Alam, Gausal A Khan, Neha Dhyani, M. Sarwar Alam, Inhibition of snake venom induced sterile inflammation and PLA2 activity by Titanium dioxide Nanoparticles, Scientific Reports, volume 9, Article number: 11175 (2019). (I.F=4.6)
- ✓ **S. Chakrabartty**, S. Kumar, H. Song, M. Jeon, Ag/TiO2NPs/TiO2TF/Si Based Non- volatile Memristor Device for Neuromorphic Computing Applications, Journal of nanoscience and Nanotechnology, Vol. 18, pp. 1-5, (2018). (I.F=1.354)
- ✓ **S. Chakrabartty,** A. Mondal, P. Chakrabarti, S.K. Singh, A. K. Saha, P. Singh, Synthesis of biocompatible TiO2 nanodots: Glancing angle deposition technique, Journal of nanoscience and nanotechnology, vol. 15, pp. 1–6, 2015. (Impact factor- 1.56).
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International Patents

- ✓ Prolific Ag electrode in memristor and crossbar structure for Neuromorphic Computing: **Shubhro Chakrabartty** and Hanjung Song: 22 February 2019, Parent No. 10-2019- 0133338.
- ✓ Ag based memristor device for advanced neuro-computing and method or fabricating the memristor device: **Shubhro Chakrabartty**, Hanjung Song, AlaaDdin Al-Shidaifat , 11/01/2021, Parent No.- 1020210003105.