Partha Das
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West Bengal-741121
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Career objective:

To work in an organization with a professional work-driven environment, where I can explore and apply my skills, knowledge and, more importantly, lead a good life.

Academic profile:

Degree	Institution/Board	Year	Aggregate
Secondary	W.B.B.S.E.	2003	78.63%
H.S (Science)	W.B.C.H.S.E.	2005	80.90%
B.Tech (ECE)	Jalpaiguri Govt. Engg. College	2005-2009	7.45
M.Tech (VLSI)	Calcutta University	2010-2012	7.60
PhD (Electronic devices)	NIT Durgapur (Dielectric engineering on GaN for high electron mobility transistors)	Waiting for defending the PhD thesis on April 2022	

Experience:

Post held	Nature of job	Organization	Duration
Assistant Professor	Teaching (E&TC)	G H Raisoni College of Engineering & Management, Wagholi, Pune	3 months (Currently working)
Assistant Professor	Teaching (ECE)	B.A. College of Engineering and Technology (BACET), Jamshedpur, Jharkhand, India	4 years
Honorary Research Student	Research	University of Liverpool, UK Project No.- EP/P510981/1, EPSRC, UK. Project No.- IND/CONT/G/17-18/18, UGC-UKIERI, UKIERI III, UK. Project funded by UKRI-Global Challenge Research Fund (GCRF), UK.	1 year and 4 months

Achievements & Certification:

MHRD Scholarship-M.TECH (Gate-2010) and PhD (Gate-2016), CBSE NET-DEC. 2015 and WB-SET 2015.

Experimental Tools & Simulation Softwares:

VASE, XPS, UPS, IEPS, XRD, SEM, TEM, Sputtering, ALD, GaN-based device fabrication and characterization, H-Spice, and TCAD Silvaco etc.

Training exposure:

- INUP familiarization workshop on- **"Nanofabrication Technologies (7th)"**, IIT Bombay, 22th-24th May 2017
- INUP hands-on training workshop on- "**Fabrication & Characterization of GaN LED**", IIT Bombay, 10th-15th September 2017.
- INUP hands-on training workshop on- "**Fabrication & Characterization of GaN MOS Capacitors**", IIT Bombay, 22th-26th October 2018.
- Workshop-cum-Training Programme on- "**Advanced Materials Processing & Characterization**", CSIR-CMERI, 7th-8th September 2017.

Key publications:

Journals:

- S. Biswas, A. D. Paul, **P. Das**, P. Tiwary, H. J. Edwards, V. R. Dhanak, I. Z. Mitrovic and R. Mahapatra, "Impact of AlO_y Interfacial Layer on Resistive Switching Performance of Flexible HfO_x/AlO_y ReRAMs", *IEEE Transactions on Electron Devices*, v. 68, 2021, pp. 3787-3793, IF 2.917
- A. D. Paul, S. Biswas, **P. Das**, H. J. Edwards, A. Dalal, S. Maji, V. R. Dhanak, A. Mondal and R. Mahapatra "Improved resistive switching characteristics of Ag/Al:HfOx/ITO/PET ReRAM for flexible electronics application" *Semiconductor Science and Technology*, v. 36, 2021, pp. 065006 (8pp), IF 2.508
- S. Maji, A. D. Paul, **P. Das**, S. Chatterjee, P. Chatterjee, V. R. Dhanak, A. K. Chakraborty, and R. Mahapatra "Improved Resistive Switching Performance of Graphene Oxide Based Flexible ReRAM with HfO_x Buffer Layer" *Journal of Materials Science: Materials in Electronics*, v. 32, 2021, pp. 2936-2945, IF-2.478.
- A. D. Paul, S. Biswas, **P. Das**, H. J. Edwards, V. R. Dhanak, and R. Mahapatra "Effect of Aluminum Doping on Performance of HfO_x-Based Flexible Resistive Memory Devices", *IEEE Transactions on Electron Devices*, v. 67, 2020, pp. 4222-4227, IF 2.917
- **P. Das**, L. A. H. Jones, J. T. Gibbon, V. R. Dhanak, T. P. Manzanera, J. W. Roberts, R. Potter, P. R. Chalker, S.-J. Cho, I. G. Thayne, R. Mahapatra, and I. Z. Mitrovic "Band Line-up Investigation of Atomic Layer Deposited Ti-Al-O and Ga-Al-O on GaN", ECS Journal of Solid State Science and Technology, v. 9, 2020, pp. 063003 (1-8), IF 2.070.
- S. N. Supardan, **P Das**[J], J. D. Major, A. Hannah, Z. H. Zaidi, R. Mahapatra, K. B. Lee, R. Valizadeh, P. A. Houston, S. Hall, V. R. Dhanak and I. Z. Mitrovic "Band alignments of sputtered dielectrics on GaN", *Journal of Physics D: Applied Physics*, v. 53, 2019, pp. 063003 (1-10), IF 3.207. ([J]Joint first-author)
- S. Maji, S. Samanta, **P. Das**, S. Maikap, V. R. Dhanak, I. Z. Mitrovic, and R. Mahapatra "Set compliance current induced resistive memory characteristics of $W/Hf/HfO_x/TiN$ devices", *Journal of Vacuum Science & Technology B*, v. 37, 2019, pp. 021204 (1-7), IF 1.416.
- K. Sawangsri, **P. Das**, S. N. Supardan, I. Z. Mitrovic, S. Hall, R. Mahapatra, A. K. Chakraborty, R. Treharne, J. Gibbon, V. R. Dhanak, K. Durose, P. R. Chalker "Experimental band alignment of Ta_2O_5/GaN for MIS-HEMT applications", *Microelectronic Engineering*, v. 178, 2017, pp. 178-181, IF 2.523.

Conferences:

- K. Sawangsri, **P. Das**, S. N. Supardan, I. Z. Mitrovic, S. Hall, R. Mahapatra, A. K. Chakraborty, R. Treharne, V. R. Dhanak, K. Durose, P. R. Chalker "Experimental band alignment of Ta_2O_5/GaN for MIS-HEMT applications", *Insulating Films on Semiconductors* (INFOS) 2017, Potsdam, Germany. (Talk given by I. Z. Mitrovic)
- **P. Das**, S. N. Supardan, I. Z. Mitrovic, V. R. Dhanak, A. Shaw, S. Hall, A. K. Chakraborty, R. Mahapatra "Band Alignment of Sputtered Al_2O_3/GaN for MIS-HEMT

Applications" *International Workshop on Physics of Semiconductor Devices* (IWPSD) 2017, Kolkata, India. (Poster presented by P. Das)

- L. A. H. Jones, **P. Das**, T. P. Manzanera, J. T. Gibbon, R. Potter, P. R. Chalker, R. Mahapatra, V. R. Dhanak, I. Z. Mitrovic "Atomic Layer Deposited TiO_2/Al_2O_3 Nanolaminates on GaN" *Insulating Films on Semiconductors* (INFOS) 2019, Clare College, University of Cambridge, UK. (Talk given by P. Das)
- **P. Das**, S. N. Supardan, J. W. Roberts, V. R. Dhanak, I. Z. Mitrovic, R. Mahapatra "Band alignment of ALD deposited ZrO_2/GaN for MIS-HEMT applications" *International Workshop on Physics of Semiconductor Devices* (IWPSD) 2019, IIT Delhi, Delhi, India (Talk given by R. Mahapatra)
- S. B. Tekin , **P. Das**, A. D. Weerakkody, N. Sedghi, S. Hall, I. Z. Mitrovic, M. Werner, J. S. Wrench, P. R. Chalker "Single and Triple Insulator Tunnel Rectifiers for Infrared Energy Harvesting" *EUROSOI-ULIS* 2020, Normandy, France (Virtual). https://doi.org/10.1109/EUROSOI-ULIS49407.2020.9365388.
- I. Z. Mitrovic, **P. Das**, L. A. H. Jones, J. T. Gibbon, V. R. Dhanak, R. Mahapatra, T. P. Manzanera, J. W. Roberts, R. Potter, P. R. Chalker, S.-J. Cho and I. G. Thayne "(Invited) Band Line-up of High-k Oxides on GaN" *ECS Transactions*, v. 97, 2021, https://doi.org/10.1149/09701.0067ecst.

Hobbies and interest:

I enjoy listening to music, playing badminton and carom, solving puzzles and socializing with friends and family.

References:

1. Prof. Rajat Mahapatra, Department of ECE, National Institute of Technology Durgapur, Durgapur, India Email: rajat.mahapatra@ece.nitdgp.ac.in; Contact Number: 9434788126
2. Dr. Ivona Z. Mitrovic, Department of Electrical Engineering & Electronics, University of Liverpool, UK, Email: ivona@liverpool.ac.uk; Contact Number: +44 (0) 151 7944516

Personal Details:

Date of Birth	: 14th May 1987
Sex	: Male
Marital Status	: Married
Nationality	: Indian
Languages Known	: Bengali, English and Hindi

ORCID ID: https://orcid.org/0000-0003-1147-6541

Declaration:

I hereby declare that all the above furnished details are true, correct and complete to the best of my knowledge.

Place: Wagholi, Pune **Partha Das**
Date: 01/04/2022