Faculty Profile

Name:	**Dr. Rajesh Kumar Jha**
Designation:	Assistant Professor
Teaching Areas:	Digital Electronics, Electronic Devices and Circuits, Microelectronics and VLSI
Research Area:	Semiconductor Devices, Thin Films, Nonvolatile Memory and Solar cell.
Education:	PhD from Indian Institute of Information Technology, Allahabad in 2020.
	M.Tech from Indian Institute of Information Technology, Allahabad in 2017.
	B.E. (Hons.) from RGPV Bhopal in 2013.
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Research / Selected Publications:

1. **Rajesh Kumar Jha,** Prashant Singh**, Upendra Kashniyal, Manish Goswami and B. R. Singh, "**Impact of HfO_2 Buffer layer on the Electrical Characteristics ferroelectric/High-K Gate Stack for Nonvolatile Memory Applications**", Applied Physics A, Materials Science & Processing, 126(6),2020 *Springer,* ,. (**SCI, **IF-1.81).**
2. **Rajesh Kumar Jha,** Prashant Singh**, Manish Goswami and B. R. Singh, "**Impact of Plasma Enhanced Atomic Layer Deposited HfO_2 Buffer Layer on the Structural, Electrical and Ferroelectric Properties of Metal/Ferroelectric/Insulator/Semiconductor Gate Stack for Nonvolatile Memory Applications**", *Journal of Materials Science: Materials in Electronics*, *Springer*, Volume 30, Issue 16, pp. 15224–15235, 2019. (**SCI, **IF-2.22).**
3. **Rajesh Kumar Jha,** Prashant Singh**, Manish Goswami and B. R. Singh, "**Integration of Ferroelectric-BIT and Dielectric-HfO_2 on Silicon Substrate with High Data Retention and Endurance for Ferroelectric-FET Applications**", Applied Physics A, Materials Science & Processing *Springer, 125(11), 798*,.2019 (**SCI, **IF-1.81).**
4. **Rajesh Kumar Jha,** Prashant Singh**, Manish Goswami and B. R. Singh, "**Comparative study of Structural Electrical Dielectric and Ferroelectric Properties of HfO_2 Deposited by Plasma Enhanced Atomic Layer Deposition and Radio Frequency Sputtering Technique for the Application in 1-T FeFET**", *Journal of Materials Science: Materials in Electronics*, *Springer*,Volume 30(23),20360-20368 (**SCI, **IF-2.22).**
5. **Rajesh Kumar Jha,** Prashant Singh**, Manish Goswami and B. R. Singh, "**Plasma enhanced Atomic Layer Deposited HfO_2 ferroelectric films for Non-volatile Memory Applications**",*Journal of Electronic Materials* ,*Springer*,49(2) pp. 1445-1453, 2019 (**SCI, **IF 1.774).**
6. **Rajesh Kumar Jha,** Prashant Singh**,** Manish Goswami and B. R. Singh, **"**Impact of HfO_2 as a Passivation Layer on Efficiency Enhancement of Passivated Emitter Rear Cell type Solar cell**", *Journal of Nanoscience and Nanotechnology, 20.6 (2020): 3718-3723* (**SCIE, **IF-1.354).**