Dr. Md Riyaj

Personal Information

1. Name: Dr. Md Riyaj

2. Mobile Number: 6203543601,7042313560

3. Email: drmdriyaj@gmail.com

4. Date of Birth: 20/01/1986

5. Gender: Male

6. Father's Name: Md Siraj

Academic Qualifications

Degree	Specialization	Institution	Year of Completion	CGPA/Percentage	Thesis/Project Title
PhD	Optoelectronics	Manipal University Jaipur	2021	8.8	Type-I and Type-II heterostructure
M.Tech	VLSI	Suresh Gyan Vihar University,Jaipur, Rajasthan	2015	6.57	AES Algorithm
B.Tech	ECE	Rajasthan Technical university Kota, JNIT Jaipur, Rajasthan	2010	68.00	
Diploma Engg.	ECE	Board of Technical Education, Karnataka	2007	73.00	
Matric	Math	Bihar school examination board Patna,Bihar	2002	62.00	

Professional Experience

1. Current Designation: Associate Professor

2. Department: ECE

3. Total Teaching Experience (Years): 6

4. Subjects Taught: 1. Analog Electronics

2. Digital CMOS VLSI Design

3. Linear Integrated Circuits

Technical Skills

1. Simulation Software: Cadence virtuoso, Xilinx, HD Studio

Research Work and Publications

1. Research Interests: Microelectronics and VLSI Design, Semiconductor Optoelectronics Devices

2. Journals Published:

Title of the Paper(s)	Name of the Author(s)	Name of the Journal	Page(s)	Volume& Year; DOI Link
Bandgap taioloring and optical responses of InAlAs/InGaAs/GaAsSb double quantum well heterostructure:the impact of uniaxial strain and well width variations	**Md Riyaj**, Puspalata,Amit Rathi, PA Alvi	Journal of modern optics, Springer(Q3)	1229-1238	69,2022, https://doi.org/10.1080/09500340.2022.2160023
A Computational investigation to tune the optical gain in AlSb/InGaAsSb/AlSb Type-I quantum well heterostructure	**Md.Riyaj,** Puspalata,Amit Rathi	European physical journal B , Springer(Q3)	1-11	95,2022 https://doi.org/10.1140/epjb/s10051-022-00434-6

Tuning the responsible parameters for gain characteristics of the novel type-II D-QW (InGaAs) heterostructure	**MdRiyaj**,Amit Rathi, PA Alvi	Materials Science in Semiconductor Processing, Elsevier(Q1)	106377	140,2022 https://doi.org/10.1016/j.mssp.2021.106377
Band Dispersion and Optical Gain calculations in Type-II GaAsSb/InGaAs/ GaAsSb nano- scale heterostructure under External electricfieldalong[100] Direction	**MdRiyaj**,Amit Rathi,P .A Alvi	Superlattices and Microstructures, Elsevier (Q2)	106694	150,2021 https://doi.org/10.1016/j.spmi.2020.106694
High Pressure Affects on Optical Characteristics of AlGaAs/GaAsP/AlGaAs heterostructure	**Md.Riyaj,** Amit Rathi,A.KSingh, P.AAlvi,	Optik,Elsevier (Q2)	389-397	181,2019 https://doi.org/10.1016/j.ijleo.2018.12.069
Optical gain tuning within IR region in type-II InGaAsP/GaAsSb nano-scale heterostructure under external uniaxial strain	A.K.Singh,Amit Rathi,,**Md.Riyaj,** G.Bhardwaj,P.A. Alvi	Superlattices and Microstructures, Elsevier (Q2)	591-602	111,2017 https://doi.org/10.1016/j.spmi.2017.07.014
Anisotropy and optical gain improvement in type-II InGaAs/GaAsSb nano-scale heterostructureunderexternal uniaxial strain	A.K Singh,**Md. Riyaj**, S. G. Anjum, Nisha Yadav,AmitRathi, M.J.Siddiqui,P. A.Alvi,	Superlattices and Microstructures, Elsevier (Q2)	406-415	98,2016 https://doi.org/10.1016/j.spmi.2016.08.048

3. Conferences

Title of the Paper(s)	**Name of the Author(s)**	**Name of the Conference**	**Page(s)**	**Volume& Year; DOI Link**
Investigation of High Optical Gain in Type-I AlSb/InGaAsSb/AlsbNano-scale Heterostructure for NIR Applications	Md. Riyaj, P.A. Alvi, Pushpalata, Sujeetkumar,Amit Rathi	(ICCIES-2021), AIPPublishing,	040001	2494,2022; https://doi.org/10.1063/5.0106440

Wavefunctions and Optical Gain in $In_{0.24}Ga_{0.76}N$/GaN Type-I Nano-heterostructure Under External Uniaxial Strain	**Md Riyaj**, Amit KumarSingh,PA Alvi, Amit Rathi	ICTSES2018, LNEE, Springer	341-349	607,2019 https://doi.org/10.1007/978-981-15-0214-9_38
Optical Gain Tuning in Type-I $Al_{0.45}Ga_{0.55}As$/GaAs Nano-heterostructure	**MdRiyaj,**Sushil Kumar, PA Alvi, Amit Rathi	ICTSES2018, LNEE, Springer	205-210	607,2019 https://doi.org/10.1007/978-981-15-0214-9_24
RedShift in Optical Properties of Type-I $Al_{0.45}Ga_{0.55}As/GaAs_{0.84}P_{0.16}/Al_{0.45}Ga_{0.55}As$ Nano-heterostructure under External Strain	Amit Rathi, Amit KumarSingh,**Md Riyaj**, S. Dalela, and P. A. Alvi.	IOP Conference Series:Materials Science and Engineering	012036	576,2019 https://doi.org/10.1088/1757-899X/576/1/012036
Wavefunctions and Optical Gain inType-II Double Quantum Well Nano heterostructure Under External Uniaxial Strain.	AmitKumarSingh, Amit Rathi, **Md Riyaj**, and P. A. Alvi.	EVCIP2018, LNEE, Springer	143-151	478,2018 https://doi.org/10.1007/978-981-13-1642-5_13
Optical properties of type-I GaAsP/AlGaAs nano-heterostructure under external uniaxial strain	**Md Riyaj**, A. K. Singh,Amit Rathi, and P. A. Alvi.	AIP conference proceedings	120022	.1832,2017 https://doi.org/10.1063/1.4980707
Wavefunctions and optical gain in $Al_{0.8}Ga_{0.2}As/GaAs_{0.8}P_{0.2}$ type-I QW-heterostructure under external electric field	AmitKumarSingh, Amit Rathi, **Md Riyaj**,K.Sandhya, Garima Bhardwaj, and P. A. Alvi.	Comptelix, IEEE	59-62	2017,**DOI:** 10.1109/COMPTELIX.2017.8003938

Professional Profiles (Optional)

1. Google Scholar: https://scholar.google.com/citations?user=WVBw5EIAAAAJ&hl=en

Declaration

I Md Riyaj hereby declare that the above information is true and correct to the best of my knowledge.

Date: 02/11/24

Place: Purnea