

BIODATA

Dr. UPAMA DAS

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Mother's Name: Gita Das

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Ganaraj Chowmohani, North side Of I.O.C.,
Agartala-799001, West Tripura

Date of birth: 26/10/1985
Nationality: Indian
Category: UR

DETAILS OF EDUCATIONAL QUALIFICATION

Exam. Passed	Specialization	Board/University	Passing Year	Class/Div ⁿ	%/CGP Amarks
10 th	All	TBSE	2002	1 ST	63.00
Diploma	Electrical Engineering	WBSCTE	2006	1 ST (Distinction)	75.60
B.Tech	Electrical Engineering	WBUT	2009	1 ST	7.24
M.Tech	Instrumentation	NIT AGARTALA	2012	1 ST (Distinction)	8.41
Ph.D.	Power Electronics And Drives	NIT MIZORAM	2021	1 ST	8.50

DOCTORAL DEGREE DETAILS

Thesis Title :	MODIFIED CONTROL STRATEGIES OF A BRUSHLESS DC MOTOR DRIVE
Research area :	Power Electronics and Machine Drives
Date of Thesis Submission :	11-Jul-2020
Date of Viva-Voce :	28-Mar-2021
Degree Awarded Date :	28-Mar-2021
Name of Supervisor & Address :	Dr. Pabitra Kumar Biswas Associate Professor, NIT Mizoram

BIODATA

M.TECH DEGREE DETAILS

Dissertation Title :	Broadband Frequency Conversion Using TIR-QPM on Isotropic Semiconductor Slab with Parabolic Upper Surface Configuration
Area of Dissertation work :	Instrumentation
Name of Supervisor & Address :	Dr. Sumita Deb, Associate Professor, NIT Agartala

DETAILS OF EMPLOYMENTS

Name of Employer	Designation	From	To
Sharad Institute of Technology College of Engineering, Yadrav	Associate Professor	01/09/2024	Till Date
Sharad Institute of Technology College of Engineering, Yadrav	Assistant Professor	08/01/2024	31/08/2024
NIT Mizoram	Temporary Faculty	21/02/2023	31/12/2023
NIT Mizoram	Assistant Professor (Adhoc)	07/02/2014	12/02/2023
The Assam Kaziranga University	Assistant Professor	29/08/2012	03/02/2014
NIT Agartala	Taking Laboratory Classes	July, 2011	Dec, 2011
The AMCS	Regular Faculty	26/10/2009	23/06/2010

COURSES TAUGHT

Instrumentation, Control System, Electrical and Electronics Measurements, Circuit Theory, Basic Electrical Engineering, Industrial Instrumentation and Control, Signals and Systems, Energy Management and Audit, Data Communication and Networking, Internet of Things, Linear Integrated Circuit.

LABORATORY CLASSES CONDUCTED TILL DATE

Basic Electrical Engineering, Electrical and Electronic Measurement, Instrumentation, Control Systems, Circuit Theory, Power Electronics, Data Communication and Networking, Linear Integrated Circuit.

JOURNAL PAPERS

1. **Upama Das**, Sukanta Debnath, Suraj Gupta, Pabitra Kumar Biswas, Sujit Kumar Biswas, and Thanikanti Sudhakar Babu, “Design, simulation and testing of U-type actuator-based single-coil active-magnetic-bearing”, Mechanics Based Design of Structures and Machines, Taylor & Francis, 1–17, Nov, 2024.
2. Sukanta Debnath, **Upama Das**, “Control the Axial Displacement of the Rotor Position with Load and No Load Condition in an Active Magnetic Bearing System.” J. Vib. Eng. Technol. (2024).

BIODATA

3. Sukanta Debnath, **Upama Das**, Pabitra Kumar Biswas, “Comparative Analysis of Single Coil and Double Coil Active Magnetic Bearings for High Speed Application”, Electrical Engineering, 2024.
4. **Upama Das**, Sukanta Debnath, Suraj Gupta, Pabitra Kumar Biswas, Thanikanti Sudhakar Babu, Nnamdi I. Nwulu, “Active Magnetic Bearing System Using I-Type and U-Type Actuator”, IEEE Access, 2023.
5. **Upama Das**, P.K. Biswas, “Relative study of Classical and fuzzy logic Controllers in Closed Loop BLDC Motor Drive with GA and PSO optimization techniques”, Journal of applied research and technology, vol. 19, no. 4, pp. 379-402, August. 2021.
6. Sukanta Debnath, **Upama Das**, Pabitra Kumar Biswas, Belqasem Aljafari, Sudhakar Babu Thanikanti, “Design and Control of Multicoil Active Magnetic Bearing System for High-Speed Application”, Energies 2023, 16, 4447.
7. Jonathan Laldingliana, Sukanta Debnath, P.K. Biswas, **Upama Das**, “Design and Speed Control of U-Type 3-Coils Active Magnetic Bearing”, Electrical Engineering, 2023.
8. **Upama Das**, P.K. Biswas, Sanjeev Parek, “Performance analysis for Open Loop Brushless DC Motor Drives”, IJEAT, vol. 8, no. 6, pp. 1220-1228, August. 2019.
9. Smita Banik, **Upama Das**, Sumita Deb, Ardhendu Saha, “Numerical analysis of broadband second harmonic generation using TIR-QPM in a parabolic profiled isotropic semiconductor slab”, Optics Communications, vol. 295, pp. 180-187, May. 2013.
10. **Upama Das**, P. K. Biswas, “Closed Loop Speed Control of BLDC Motor Drive by using classical controllers with Genetic Algorithm”, Journal of Power Technologies, vol. 100, no. 2, pp. 161-170, June. 2020.
11. **Upama Das**, P.K. Biswas, Sukanta Debnath, “A Comparative Study between Load and No-Load condition of Brushless DC Motor Drives by Using MATLAB”, Journal of Power Technologies, vol. 98, no. 3, pp. 281-286, June. 2017.
12. **Upama Das**, P. K. Biswas, “Variation of Speed and Torque Response of Closed-Loop Classical Controlled Different Rated BLDC Motor”, International Journal of Recent Technology and Engineering, vol. 8, no. 6, pp. 230-235, March. 2020.
13. **Upama Das**, P. K. Biswas, “Speed Response Optimisation of A BLDC Motor Drive with Ga-Based Classical Controller Tuning”, International Journal of Innovative Technology and Exploring Engineering, vol. 9, no. 3, pp. 2167-2172, January. 2020.
14. Sukanta Debnath, P.K. Biswas, **Upama Das**, “Analysis and Simulation of Different type of Power Amplifiers Used in Electromagnetic Levitation System”, Journal of Power Technologies, vol. 98, no. 2, pp. 220-227, August. 2018.
15. **Upama Das**, P.K. Biswas, Sukanta Debnath, “Modeling and Simulation of Open Loop Model of Brush Less DC Motor by Using MATLAB Based Software”, International Journal of Electronics, Electrical and Computational System, Volume 6, Issue 6, pp.520-526, June 2017.
16. Sumita Deb, Ardhendu Saha, Smita Banik, **Upama Das**, “Determination of Phase Matching Angle for Non-Resonant Total Internal Reflection Quasi-Phase Matching in a Parallel slab using MATLAB/SIMULINK Software”, UACEE International Journal of Advancements in Electronics and Electrical Engineering, vol. 1, no. 2, pp. 118-121, 2012.
17. Sumita Deb, Ardhendu Saha, Smita Banik, **Upama Das**, “Quasi-Phase Matched Second-Harmonic Generation in Telluride Compounds Using Total Internal Reflection”, UACEE International Journal of Advancements in Electronics and Electrical Engineering, vol. 1, no. 2, pp. 122-125, 2012.

CONFERENCE PAPERS

1. **Upama Das**, P. K. Biswas, "Performance analysis of BLDC motor drive by varying the sensor angle for no load condition," 2019 International Conference on Smart Systems and Inventive Technology (ICSSIT), Tirunelveli, India, 2019, pp. 983-987.

BIODATA

2. S. Jana, P. K. Biswas and **U. Das**, "A comparative study of two-level and five-level inverter to convert supercapacitive energy for PMSM load," 2017 IEEE Calcutta Conference (CALCON), Kolkata, India, 2017, pp. 352-356.
3. S. Jana, P. K. Biswas and **U. Das**, "Integration of supercapacitive storage in renewable energy system to compare the response of two level and five level inverter with RL type load," in International Conference on electrical, electronics, materials and applied science, 22-23 December, 2017.
4. S. Jana, P. K. Biswas and **U. Das**, "Numerical Computational Analysis of Lightning Energy Storage System Using Single Stage Two Level Impulse Generator," 2018 2nd International Conference on Power, Energy and Environment: Towards Smart Technology (ICEPE), Shillong, India, 2018, pp. 1-6.
5. Venkatesh Tadivalasa, P.K. Biswas, **Upama Das**, "Controlling of PV fed BLDC Motor using FUZZY and PSO Techniques," 2022 International Conference on Futuristic Technologies (INCOFT), Belgaum, India, 2022
6. Sukanta Debnath, **Upama Das**, Pabitra Kumar Biswas, "Design and Testing of U-Type Electromagnetic Actuator for Magnetic Bearing", 2nd International Conference on Power Engineering and Intelligent Systems (PEIS), March 16-17, 2024, NIT Uttarakhand.
7. M.Saha, **U. Das**, S. Debnath, A.Mandal, K.Das, P.Deb, "Open loop control strategy of Eleven-level, Multilevel Inverter Design Utilizing Reduced Number of Switches", 6th International Conference on Communication and Intelligent Systems (ICCIS 2024), November 08-09, 2024, MANIT Bhopal.
8. M.Saha, S.Deb, K.Das, H.Kumar, A.Mandal, **U. Das**, "Highly efficient 2400 nm SHG in KNbO₃ crystal using TIR-based ORQPM technique controlling the chirality by external electric field", IEEE SILICON 2024, November 15-17, 2024, NIT Agartala.

BOOK CHAPTER PUBLISHED

1. **Upama Das**, P. K. Biswas, Chiranjit Sain "A Noble Control Approach for Brushless Direct Current Motor Drive Using Artificial Intelligence for Optimum Operation of The Electric Vehicle," Artificial Intelligent Techniques for Electric and Hybrid Electric Vehicles, Willey, pp. 17-48, July, 2020.

BOOK PUBLISHED

1. **Upama Das**, Sukanta Debnath, Pabitra Kumar Biswas, "Optimized Speed Control Strategies of BLDC Motor Drive", Eliva Press, 9789999316170, 2024.
2. Sukanta Debnath, **Upama Das**, Pabitra Kumar Biswas, "Active Magnetic Bearing for High Speed Application", Eliva Press, 978-99993-1-430-5, 2024

PATENT PUBLISHED / GRANTED

1. Sukanta Debnath, **Upama Das**, Pabitra Kumar Biswas, "Single coil I-Type Axial Active Magnetic Bearing for High Speed Application", (Patent No. 202421030971). The Patent office, Government of India. (PUBLISHED)
2. Sukanta Debnath, **Upama Das**, Pabitra Kumar Biswas, "Multicoil Active Magnetic Bearing for Machining Tool Application", (Patent No. 202421030969). The Patent office, Government of India. (PUBLISHED)
3. **Upama Das**, Sukanta Debnath, Pabitra Kumar Biswas, "I-Type Electromagnetic Actuator Design

BIODATA

and Testing for Active Magnetic Bearing", (Patent No. 202421030972). The Patent office, Government of India. (PUBLISHED)

ESTABLISHMENT OF NEW LAB

SL. NO	Name of Lab	Year of Establishment	Department/Institute
1	INSTRUMENTATION	2015	EEE/NIT MIZORAM

DEPARTMENTAL / CENTRAL ACTIVITIES

SL. NO	Activity	Period	
		From	To
1	B.Tech coordinator (NIT Mizoram)	28-08-2019	31/12/2023
2	Faculty Advisor (NIT Mizoram)	18-01-2021	31/12/2023
3	Lab in charge (NIT Mizoram)	28-08-2017	31/12/2023
4	Warden (NIT Mizoram)	01-09-2022	12/02/2023
5	Institute Innovation Council Coordinator	08-01-2024	Till Date
6	Industry Institute Partnership Cell Coordinator	08-01-2024	Till Date
7	NBA CR.3 Coordinator	08-01-2024	Till Date
8	ISO Coordinator	08-01-2024	Till Date
9	NIRF Parameter 3 Coordinator	12-02-2025	Till Date

NAME AND ADDRESS OF TWO REFERENCES

1 st reference		2 nd reference	
Name	Dr. Pabitra Kumar Biswas	Name	Dr. Subir Datta
Position	Associate Professor	Position	Associate Professor
Address	NIT Mizoram Chaltlang, Dawrkawn Aizawl - 796012	Address	Mizoram University Aizawl, Mizoram
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Phone No.	9749148157	Phone No.	9433887966

DECLARATION

"I hereby declare that the statements made by me are true, complete and correct to the best of my knowledge and belief."

Place: Ichalkaranji

Date:

Upama Das

Signature of Applicant

Name: UPAMA DAS