

Name Mr Arobindra Saikia

Designation Assistant Professor (Stage III)

Department Instrumentation Engineering, Jorhat Engineering College, Jorhat-785007, Assam

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Area of Specialization:

Instrumentation and Control

Educational Qualification:

PhD Pursuing, Department of Electronics and Electrical Engineering,
Indian Institute of Technology, Guwahati

M Tech Specialization: Electronic Design and Technology
Department of Electronics & Communication Engineering,
Tezpur University, 2002

BE Instrumentation Engineering,
Jorhat Engineering College, Jorhat. 1998

Professional Experience:

2005-2007: Assistant Professor, Electronics and Communication Engineering, Sikkim
Manipal Institute of Technology, Majitar, Sikkim
From 02/03/ 2007 - till date: Faculty, Jorhat Engineering College

Courses Taught:

Basic Electronics, Analog Integrated Circuits, Communication Engineering, Optoelectronics, Process Modelling and Control, Environmental Monitoring and Control, Instrumentation System Components, Drawing and Design of Instrumentation System Components, Automatic Control Theory, Optical Instruments, Optoelectronics and optical communication, Instrumentation System Installation and Professional Practice, Digital Electronics, Electronic Instruments, Advanced Process Control, Environmental Instrumentation, Principles of Fire & Safety.

Projects guided:

UG: More than 50
PG: 03

Workshop/FDP organized:

Sl. No.	Name of Workshop/FDP	Duration	Role
1	Workshop on Control System	24 th March 2018	Coordinator

	Hierarchy and Safety Instrumented System (SIS)-A perceptive to the Industrial Safety.		
2	Workshop on Advanced Matlab and its Applications.	2 nd & 3 rd May, 2018	Coordinator
3	One day talk on Project Management and Finance.	18 th June 2018	Coordinator
4	One day talk on Engineers' Innovation and Disability and Ethical Commitment of Engineers' on Nation Building.	19 th June 2018	Coordinator
5	Faculty Development Programme on Advances in Photonics	3 rd to 8 th December 2018	Coordinator

Membership:

- Life Member of Instrument Society of India
- Life Member of Biomedical Society of India
- Member 1st Board of Studies (BOS) meeting of Assam Science and Technology University (ASTU) B. Tech Instrumentation Engineering held on 06/04/2018

Sponsored Research Project:

Project Title	Funding Agency	Amount	Duration	Current Status
Electric vehicle stability enhancement and minimize energy requirement.	TEQIP-III of Assam Science & Technology University.	2.2 Lakh	1.5 years	Completed

Sponsored MODROB Project:

Project Title	Funding Agency	Amount	Duration	Current Status
Development of Advanced Sensor and Transducer Lab	MODROB, AICTE	13.41 Lakhs	2 years	Ongoing

Publication:

1. K. P. Ghatak, S. Bhattacharya, H. Saikia, D. Baruah, **A. Saikia**, K.M. Singh, A. Ali, S.N. Mitra, P.K. Bose, A. Sinha. "*The Debye Screening Length in Ultrathin Films of Nonlinear Optical, Optoelectronic, and Related Materials: Simplified Theory and Suggestion for Experimental Determination*", Journal of Computational and Theoretical Nano science 3(5):727-751. October 2006.
2. **A. Saikia**¹, C. Mahanta². "*Active Front Steering Using PID based Sliding Mode Control*", International Conference on Recent Trends in Industrial and Mechanical Engineering (ICTIME 2016), 4- 6 February' 2016, MANIT, Bhopal.

3. **A. Saikia¹**, C. Mahanta². “*Integrated Control of Active Front Steer Angle and Direct Yaw Moment Using Second Order Sliding Mode Technique*”, 2016 1st International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES 2016), 4-6 July’ 2016, Delhi Technological University, Delhi.
4. **A. Saikia¹**, C. Mahanta². “*Lateral Stability Enhancement of Vehicles Using Adaptive Sliding Mode Based Active Front Steering and Direct Yaw Moment Control*”, INDICON 2016, 16-18 December’ 2016, IISC Bangalore.
5. **A. Saikia¹**, C. Mahanta². “*Vehicle Stability Enhancement Using Sliding Mode Based Active Front Steering and Direct Yaw Moment Control*”, Indian Control Conference (ICC 2017), 4-6 Jan’ 2017, IIT Guwahati.
6. **W. Saikia¹**, **A. Saikia²**. “*Magnetic Levitation System Control Strategy Based on Backstepping Technique to Design Sliding Mode Controller*”, ICEPE2018, 1-3 June, 2018, NIT Meghalaya.
7. **A. Saikia** and M. Pathak, Integrated Control of Active Front Steer Angle and Direct Yaw Moment Using Nonsingular Terminal Sliding Mode Technique, National Conference on ETEES-19, 29-30th March, 2019, AEC, Guwahati, Assam.
8. **A. Saikia** and M. Pathak, Vehicle stability enhancement based on unified chassis control with electronic stability control and active front steering, International Conference on ERDIE-2019, 27th April 2019, JNU, New Delhi.
9. **A. Saikia** and M. Pathak, Trajectory Tracking of Robotic Manipulator using Terminal Sliding Mode Control, International Conference on ERDIE-2019, 27th April 2019, JNU, New Delhi.
10. **A. Saikia¹**, M. Pathak² “*Second Order Sliding Mode based Vehicle’s Lateral Stability Enhancement by Integrating Active Front Steer angle and Direct Yaw Moment Control*”, National Conference on Recent Advances in Science and Technology, NCRAS 2020, 17-19 th August, 2020, ASTU, Guwahati, Assam.
11. **A Saikia¹**, Dr N Baruah² “*Proposal of Sliding Mode Controller based on Backstepping Technique for Control of Magnetic Levitation System*”, International Journal of Engineering and Advanced Technology, Vol 11, issue 2, December, 2021.

FDP/ Workshop attended:

Sl No.	Name of the Course/ Summer School	Place	Duration	Sponsoring Agency
1	Workshop on Outcome Based Education.	Jorhat Engineering College, Jorhat	09 th to 10 th March 2018	TEQIP III NPIU, MHRD
2	Workshop Electrical Safety Acts, Regulations and its implementation in industries.	Jorhat Engineering College, Jorhat	23 rd March 2018	TEQIP III NPIU, MHRD
3	Workshop on Control System Hierarchy and Safety Instrumented System (SIS) - A perceptive to the Industrial Safety.	Jorhat Engineering College, Jorhat	24 th March 2018	TEQIP III NPIU, MHRD
4	Workshop on Signal Processing, Image Processing, Computer Vision and Applications.	Jorhat Engineering College, Jorhat	26 th & 27 th March, 2018	TEQIP III NPIU, MHRD

5	Foundations of Robotics, Automation and Finite Element Analysis	Jorhat Engineering College, Jorhat	25 th to 28 th April 2018 (one week)	TEQIP III NPIU, MHRD
6	Workshop on Advanced Matlab and its Applications	Jorhat Engineering College, Jorhat	2 nd & 3 rd May, 2018	TEQIP III NPIU, MHRD
7	Faculty Induction Program	Jorhat Engineering College, Jorhat	7 th to 17 th May 2018 (two week)	NITTR Kolkata, TEQIP III NPIU, MHRD
8	Workshop on Big Data Analytics and Cloud Computing	Jorhat Engineering College, Jorhat	7 th to 11 th June 2018 (one week)	TEQIP III, NPIU, MHRD
9	One day talk on Project Management and Finance	Jorhat Engineering College, Jorhat	18 th June 2018	TEQIP III, NPIU, MHRD
10	One day talk on Engineers' Innovation and Disability and Ethical Commitment of Engineers' on Nation Building	Jorhat Engineering College, Jorhat	19 th June 2018	TEQIP III, NPIU, MHRD
11	Faculty Development Programme on Teaching Learning.	IIT Madras	9 th to 13 th July 2018 (one week)	TLC, IIT Madras
12	Three day training on Introduction to OBE	Jorhat Engineering College, Jorhat	26 th to 28 th November 2018	TEQIP III, NPIU, MHRD
13	Faculty Development Programme on Advances in Photonics	Jorhat Engineering College, Jorhat	3 rd to 8 th December 2018 (one week)	TEQIP III, NPIU, MHRD
14	One day workshop on Registration Process and Technical aspects of NAD	ASTU & JEC	22 nd August 2019	TEQIP III, NPIU, MHRD
15	Three days Academic Leadership Programme	IIM Shillong & ASTU	22 nd to 24 th October 2019	TEQIP III, NPIU, MHRD & ASTU
16	One Week Workshop on Introduction to Robotics and its Applications	Jorhat Institute of Science & Technology, Jorhat	11 th to 15 th February, 2020 (one week)	TEQIP III, NPIU, MHRD
17	ATAL online FDP on Robotics	NIT Jamshedpur	25 th to 29 th May 2020	AICTE, MHRD
18	ATAL online FDP on	Government College of Engineering,	1 st to 5 th June 2020	AICTE, MHRD

	Quantum Computing	Thanjavur		
19	ATAL online FDP on Artificial Intelligence	NIT Jamshedpur	8 th to 12 th June 2020	AICTE, MHRD
20	One week FDP on Applications of IoT	NITTTR Chandigarh	16 th to 20 th June 2020	AICTE, MHRD
21	One week FDP on Materials Processing and Optimization	NITTTR Chandigarh	6 th to 10 th July 2020	AICTE, MHRD
22	One week FDP on Employability Skills for Industry 4.0	NITTTR Chandigarh	13 th to 17 th July 2020	AICTE, MHRD
23	One week FDP on Strategic Planning for Entrepreneurship Promotion	NITTTR Chandigarh	27 th July to 31 st July 2020	AICTE, MHRD
24	ATAL online FDP on Artificial Intelligence	College of Engineering and Management, Kolaghat	31 st August to 4 th September 2020	AICTE, MHRD
25	ATAL online FDP on Artificial Intelligence	Vellore Institute of Technology	21 st September to 25 th September 2020	AICTE, MHRD
26	ATAL online FDP on Artificial Intelligence	IIT Patna	19 th October to 23 rd October 2020	AICTE, MHRD
27	One week Faculty Development Programme on Effective Teaching Learning using Social Media	NITTTR Chandigarh	2 nd to 6 th November 2020	AICTE, MHRD
28	One week Faculty Development Programme on Digital Transformation of Teaching	NITTTR Chandigarh	16 th to 20 th November 2020	AICTE, MHRD
29	One week Faculty Development Programme on Recent Advances in Affordable and Clean Energy	NITTTR Chandigarh	23 rd to 27 th November 2020	AICTE, MHRD
30	One week Faculty Development Programme on Role of Leadership in Higher Education.	NITTTR Chandigarh	14 th to 18 th December 2020	AICTE, MHRD
31	One week Faculty Development Programme on Role of Technical Institutions in Community Development	NITTTR Kolkata	25 th to 29 th January 2021	AICTE, MHRD
32	One week Faculty Development Programme	NITTTR Chandigarh	08/02/2021 to 12/02/2021	AICTE, MHRD

	on Teaching and Learning for NBA Accreditation in Technical Education			
33	One week Faculty Development Programme on Soft Skills and Classroom Teaching	NITTTR Chandigarh	22/02/2021 to 26/02/2021	AICTE, MHRD
34	One week Faculty Development Programme on Research Methodology	NITTTR Kolkata	08/03/2021 to 12/03/2021	AICTE, MHRD
35	One week Faculty Development Programme on Mechatronics and Robotics	NITTTR Chandigarh	26/04/2021 to 30/04/2021	AICTE, MHRD

Interaction with Outside world:

1. Duties of External Evaluator in Gunotsav' 22 held under Dept of Elementary Education, Govt of Assam
2. Duties of Presiding Officer in various Parliamentary and Assembly Elections.