

Curriculum Vitae

Pradeep Kumar Biswal, Ph.D.

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Objective

I aim at achieving academic excellence and wish to be a successful academician. My motto is to impart quality education in the field of Computer Science and Engineering. I want to edify my career by nurturing young talents and contributing in true research. I expect a professional environment where I can be a benefactor and able to grow so as to exemplify my royal profession as a Teacher. I always interest to maintain spirituality which one is essential to control the powerful mind. Lastly, I aim to earn a good name for my organization/institute through hard-working, honesty and fidelity.

Education

- **Ph.D (CSE):** From Indian Institute of Technology Guwahati (IIT Guwahati), India in July, 2017.
- **Master of Technology (CSE):** From IIT Guwahati, India in 2011, with CPI **8.00/10**.
- **Bachelor of Engineering (CSE):** From Biju Patnaik University of Technology (BPUT), Odisha in 2004 with **74.14%** of marks.
- **10+2 Science:** From Upendra Nath College, Balasore, Odisha in 1999 with **66.67%** of marks.
- **Class-10:** From Bhadrak High School (Zilla School), Bhadrak, Odisha in 1997 with **72.67%** of marks.

Achievements

- All India Rank 378 in Graduate Aptitude Test in Engineering (**GATE**) held in February-2009 with **99.09 percentile** .

Honorarium

- Served as Teaching Assistant for the NPTEL (Ministry of HRD, Govt. of India) Online Certification course “*VLSI Design Verification and Test*”.

- Area of research**
- Fault Tolerance
 - VLSI testing
 - Quantum Computing
 - Computer Architecture
 - Discrete Event System

- Subject taught**
- Computer Organization and Architecture
 - Operating System
 - Formal Language and Automata
 - Design and Analysis of Algorithms
 - Computer Graphics
 - Data Structure and Algorithms
 - Object Oriented Programming
 - Computer Programming
 - Software Engineering
 - Advanced Data Structure and Algorithms

- Projects**
- Ph.D Thesis**
- *Decision Diagrams based On-line testing of digital VLSI circuits*, under the supervision of Dr. Santosh Biswas, Department of CSE, IIT Guwahati, Assam.
- M.Tech Thesis**
- *Enhance the performance of cache coherence problem in LCMP using multicast tree*, under the supervision of Dr. Aryabratta Sahu, Department of CSE, IIT Guwahati, Assam.

- Publications**
- Journals**
1. P. K. Biswal and S. Biswas, *A Binary Decision Diagram based Online Testing of Digital VLSI Circuits for Feedback Bridging Faults*, Microelectronics Journal, Elsevier, Vol. 46(7), Pages: 598–616, 2015 .
 2. P. K. Biswal, K. Mishra, S. Biswas and H. K. Kapoor, *A Discrete Event System Approach to Online Testing of Speed Independent Asynchronous Circuits*, VLSI Design, Hindawi, Vol. 2015, Pages: 1–16, 2015 .
 3. P. K. Biswal and S. Biswas, *A Polynomial Algorithm for Diagnosability of Fair Discrete Event Systems*, Systems Science and Control Engineering, Taylor and Francis, Vol. 3(1), Pages: 307-319, 2015.

4. P.K. Biswal, H.P. Sambho, S. Biswas, *A Discrete Event System approach to On-line Testing of digital circuits with measurement limitation*, Engineering Science and Technology, an International Journal, Elsevier, Vol. 19(3), Pages: 1473–1487, 2016.
5. P. K. Biswal, S. Biswas, *On-Line Testing of digital VLSI circuits at Register Transfer Level using High Level Decision Diagrams*, Microelectronics Journal, Elsevier, Vol. 67, Pages: 88–100, 2017.
6. P. K. Biswal, S. Biswas, *A Binary Decision Diagram Approach On-line Testing of Asynchronous Circuits with Static and Dynamic C-elements.*, Journal of Electronic Testing, Springer, Vol. 35(5), 2019, Pages 715 – 727.
7. P. K. Biswal, *A Flexible Concurrent Testing Scheme for Non-Feedback and Feedback Bridging Faults in Integrated Circuits.*, Journal of Electronic Testing, Springer, 2023, Pages 1–24.
8. Nikita Tiwari, Prakash Ranjan, Pradeep Kumar Biswal, Chetan Barde, and Neha Sinha, *Survey and analysis of blockchain technologies with respect to: properties, algorithms, architecture, models, evolution and framework*, Journal of Multimedia Tools and Applications, Springer, 2024. Pages 1–45.

Conferences

1. Pradeep Kumar Biswal and Santosh Biswas, *Timed Discrete Event System Approach to Online Testing of Asynchronous Circuits*, 23rd IEEE Mediterranean Conference on Control and Automation, page 341 - 348, 2015, Spain.
2. Pradeep Kumar Biswal and Santosh Biswas, *Diagnosability in stochastic Petri Net based DES models*, 22nd Mediterranean Conference on Control and Automation, IEEE, Pages: 434–439, 2014, Italy.
3. Pradeep Kumar Biswal and Santosh Biswas, *A Binary Decision Diagram Approach to On-line Testing of Asynchronous Circuits*, 32nd International Conference on VLSI Design and 18th International Conference on Embedded Systems (VLSID), Pages: 94-99, 2019, New Delhi, India. [**Nominated for best paper award**].
4. Pradeep Kumar Biswal, *A Concurrent Testing Scheme for Muller Circuits Using Reduced Ordered Binary Decision Diagram*, IEEE REGION 10 SYMPOSIUM (TENSYP), IIT Bombay, 1st - 3rd July 2022. *Under publication*.

Work Experience

- I am working as an Assistant Professor in the department of Computer Science and Engineering at IIIT Bhagalpur, Bihar, since October 2017.

Academic and Administrative Responsibility

- Present Responsibilities
 - HoD, Computer Science & Engineering (CSE), IIIT Bhagalpur, since August, 2024 to till date (continue).
 - Associate Dean, Development and Planning, IIIT Bhagalpur, since July, 2022 to till date (continue).
 - Faculty In-charge, Store and Purchase, IIIT Bhagalpur, since July, 2022 to till date (continue).
- Past Responsibilities
 - HoD, Computer Science & Engineering (CSE), IIIT Bhagalpur, from May 2019 to July 2022.
 - Warden for Boy's Hostel No.1 at IIIT Bhagalpur, from August, 2018 to July, 2022.
 - Faculty In-charge Computer Center at IIIT Bhagalpur, from January, 2019 to July, 2022.
 - Faculty In-Charge of official transport arrangement at IIIT Bhagalpur, from February, 2019 to July, 2022.

B.Tech and M.Tech Projects Guided

- B.Tech Projects
 - Supervised more than 25 B.Tech projects at IIIT Bhagalpur.
- M.Tech Projects
 - Supervised 03 M.Tech Projects at IIIT Bhagalpur

References

- Dr. Santosh Biswas
Professor, Department of EECS, IIT Bhilai,
GEC Campus, Sejbahar, Raipur-492015, Chhattisgarh, India.
Email: santosh@iitbhilai.ac.in
Mobile: +91-9957561026
- Dr. Aryabartta Sahu
Associate Professor, Department of CSE, IIT Guwahati, India.
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**Personal
Information**

My father, Sri Nanda Kishore Biswal is a retired teacher and my mother, Smt. Janakilata Biswal is a sincere housewife. We are devotee of Sri Sri Thakur Anukulchandra and follow His principles wholeheartedly. I always try to realize each and every step of my life and give first priority to the philosophy of "Being and Becoming". Finally, I love my life and accept it as it appears. My date of birth is 28.02.1982. Besides my mother tongue, Oriya, I am well versed in English and Hindi.

Present Address

Dr. Pradeep Kumar Biswal
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Sabour, Dist-Bhagalpur, Bihar-813210.

**Permanent
Address**

S/O: Sri Nanda Kishore Biswal
At-Solagan, Po-Bandhatia, Via-Dhamnagar, Dist-Bhadrak,
Odisha-756117

Declaration

I hereby declare that the information furnished above is true to best of my knowledge.

Date:
Place:

Signature: