



## Akshaya Kumar Dash, M.Tech.

**Designation** : Assistant Professor

**Department** : Department of Computer Science and Engineering  
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### RESEARCH INTERESTS

VLSI Physical Design:

- ✓ Reduce area, wirelength, dead-space, cpu time by optimally placing blocks.
- ✓ Maximize white space allocation and minimize block overlapping.
- ✓ Reduce routing congestion
- ✓ Develop a wire-length model for analytical placement.

### Academic Qualifications

M.Tech (Computer Science and Engineering), CET, Bhubaneswar, India

B.Tech (Computer Science and Engineering), GHITM, Puri, India

### Teaching Experience/Industrial Experience/Research Experience

- ✓ 17+ years

## PUBLICATIONS

### JOURNAL ARTICLES & CONFERENCE PAPERS

- [1]. A. K. Samal, A. K. Parida, S. K. Pani and A. K. Dash, "A novel fault-tolerant scheduling of real-time tasks on multiprocessor using discrete-elitist multi-ACO," 2015 International Conference on Communications and Signal Processing (ICCSP), 2015, pp. 1939-1945, doi: 10.1109/ICCSP.2015.7322865.
- [2]. A. K. Samal, A. K. Dash, P. C. Jena, S. K. Pani and S. Sha, "Bio-inspired approach to fault-tolerant scheduling of real-time tasks on multiprocessor

- a study," 2015 IEEE Power, Communication and Information Technology Conference (PCITC), 2015, pp. 905-911, doi:10.1109/PCITC.2015.7438125.
- [3]. S. SamantaSinghar, B. N. B. Ray, A. K. Dash and A. Malla, "Optimizing Mixed Size & Large Scale Block Placement Using Greedy Approach," 2019 International Conference on Information Technology (ICIT), 2019, pp. 442-447, doi: 10.1109/ICIT48102.2019.00084.
- [4]. A. K. Dash and B. N. B. Ray, "2D Greedy Algorithm for overlap removal for Mixed-Size Placement in VLSI," 2021 19th OITS International Conference on Information Technology (OCIT), 2021, pp. 26-31, doi: 10.1109/OCIT53463.2021.00017.

## PATENTS

- [1] Patent Title : Neural-Network Based Method for Data Partitioning and Parameter Learning Using Fuzzy Term Identification  
Patentee Names: Dr. Pramod Patro, Dr. Krishna Kumar, Dr. G. Suresh Kumar, Dr. Gandharba Swain, Trilochan Rout, Manas Ranjan Chowdhury, Dakshya Prasad Pati, Akshaya Kumar Dash, Dr. Aditya Kumar Sahu  
Patent Application Number: 202041029533  
Date of Publication: 31-07-2020
- [2] Patent Title: System For issue alert of security breach using machine learning and fuzzy logic  
Patentee Names: Pramoda Patro, Dakshya Prasad Pati, Sanjaya Kumar Sarangi, Akshaya Kumar Dash, Manas Ranjan Chowdhury, Satya Bhusha Verma, Hanumantha Rao Sama, Trilochan Rout, Umakanta Mishra, Aditya Kumar Sahu  
Patent Application Number: 2021100314  
Date of Publication: 29-04-2021
- [3] Patent Title: Method of Coastal Communication and Response System during Tropical Cyclone using Mobile Ad-hoc Network  
Patentee Names: Snehalata Agasty, Manas Ranjan Chowdhury, Akshaya Kumar Dash, Rasmitha Lenka, Arabinda Nanda, Mrutyunjaya Panda, Dakshya Prasad Pati, Sanjaya Kumar Sarangi  
Patent Application Number: 2021104117  
Date of Publication: 14-07-2021
- [4] Patent Title: Machine learning-based breast cancer detection system using near-field microwave antenna sensor  
Patentee Names: Manas Ranjan Chowdhury, Akshaya Kumar Dash, Harikishore, Rayapoodi, Dr. Kakulapati Murali Krishna, Dr. Krishna Kumar, Dr. Pramoda, Patro, Satyabrata Patro, Dr. Hanumantha Rao Sama, Alina Sasmal, Dr. Debabrata Swain.  
Patent Application Number: 202022101928.2  
Date of Publication: 11-08-2022