Mr. Sushant Kumar Pattnaik

Name : Sushant Kumar Pattnaik

Designation: Asst. Professor, Assistant Controller of Examinations, Nodal Officer, NTA (National Testing Agency)

Department : Department of Electronics and Communication Engineering (JOINED THE INSTITUTE IN 2010)

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RESEARCH INTERESTS

1. Leakage minimization in different Adder Circuits and ALU
2. Area optimization in UART circuits
3. Power & Area optimization in SRAM
4. Different Embedded systems & IoT projects (Vehicle accident alert, smart energy conservation in street light system, etc.)

Academic Qualifications

Ph. D. Continuing

M. Tech. (ECE), NIT Rourkela, Odisha, India

Specialization: Industrial Electronics

Teaching Experience/Industrial Experience/Research Experience

- ✓ Teaching experience-11 years
- ✓ Research experience-5 years
- ✓ Industry experience---3 Years

PUBLICATIONS

JOURNAL & CONFERENCES

[1] **S. K. Pattnaik** and K. K. Mahapatra "*Aircraft Power Supply Design using Soft-switched Inverter"* Proc. of National Conference on Computational Intelligence, Control and Computer Vision in Robotics & Automation, CICCRA-2008, NIT Rourkela.

[2] Sudeendra Kumar K., **S. K. Pattnaik**, Ayas Kanta Swain, Jitendra Kumar Das and K. K. Mahapatra "HCS08 microcontroller based Novel PWM Controller for Battery Charger Application" Proc. of National Conference on

Computational Intelligence, Control and Computer Vision in Robotics & Automation CICCRA-2008, NIT Rourkela.

[3] **S. K. Pattnaik** and K. K. Mahapatra "A novel Control Strategy for 400 Hz *Aircraft Power Supply using Resonant DC Link Inverter"* Proc. of National Conference on Advances in Energy Conversion Technologies, AECT-2008, Manipal Institute of Technology, Manipal.

[4] **S. K. Pattnaik** and K. K. Mahapatra "A Novel Control Circuit for Aircraft Power Supply Using Soft-Switched Inverter*"* ICIT, pp.1-6, 2009 IEEE International Conference on Industrial Technology, 2009.

[5] **S. K. Pattnaik** and K. K. Mahapatra "Power Loss Estimation for PWM and Soft-Switching Inverter using RDCLI*"* Proceedings of the International Multi Conference of Engineers and Computer Scientists, March 17-19, 2010, DATICS, IMECS 2010, Hong Kong.

[6] S. K. Behera, **S. K. Pattnaik** K. K. Mahapatra, "FPGA Implementation of PWM Inverter", International Conference on Emerging Trends in Signal Processing and VLSI Design, Hyderabad, 11-13th June-2010.

[7] U. Nanda, **S. K. Pattnaik, "**Universal Asynchronous Receiver and Transmitter (UART)", IEEE Int. Conf. on Advanced Computing and Communication Systems (ICACCS), 22-23 Jan. 2016.

[8] Sushant Kumar Pattanaik, Design & Implementation of different types of full adders in ALU & leakage minimization, IEEE conference on trends in electronics & Informatics (ICEI-2017) Tamil Nadu, 11-12 May. 2017.

[9] S. K. Pattnaik, D. Nayak U. Nanda, Design & Implementation of SRAM micro unit, IEEE conference on trends in electronics & Informatics (ICEI-2017), Tamil Nadu, 11-12 May. 2017.

[10] Umakanta Nanda, Debasish Nayak, Sushant Kumar Pattnaik, Design and Performance Analysis of Current Starved Voltage Controlled Oscillator, ICMEET-2018, pp235-246, Springer

ANY OTHER

Hackathons

1. Mentored a group of students and got Fourth Place in the "Empowering youth Hackathon", held in December 2020.

2. Mentored a group of students and got 12th Place in the "JISCEIH 2020", held in May 2020.

Approved Projects:

1. **MODROB** sanctioned for the year 2019-20 for the development of Basic Electronics Laboratory from AICTE.
2. **AICTE** Approved Faculty Development Program in the year 2013-14 in VLSI Design.

Awards:

Received a certificate of Appreciation from **Texas Instrumentation & AICTE** for fostering the ecosystem bridging the gap between Government, Academia and Industry in December 2020.

Summer Internships

1. Embedded Systems Design and IoT -2018-19
2. Application Development through IoT-2019-20