



Satyabrata Das, Ph.D. (contd.)

Designation : Associate Professor

Department : Department of Electronics & Instrumentation Engineering
(JOINED THE INSTITUTE IN 2022)

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RESEARCH INTERESTS

Preprocessing of nonlinear and non-stationary time series using adaptive mode decomposition, bio medical signal and image analysis using variational methods

Academic Qualifications:

Ph.D. (SELECT)(contd.),VIT University, India

M. Tech Electronics, MNNIT, Allahabad

Specializations : Digital System

B.Tech (Applied Electronics & Instrumentation Engg), N.I.T. Rourkela

Teaching Experience:

21 years inteaching Computer Vision, Bio Medical Image Analysis, Time Series Analysis, Signals and Systems, Digital Signal Processing, Image Processing, Adaptive Signal Processing, Statistical Signal Processing, Electromagnetic Wave, Electrical and Electronics Measurement, Sensors and Transducers, Process Control Instrumentation

Industrial Experience:

7 years in Chloro-Alkali and Caustic Fusion plant : Preventive and breakdown maintenance of various process control instrumentation such pressure, level, flow, temperature transmitters, control valve sizing, instrumentation interlock and piping diagram modification/updation.

Research Experience:

3 years in the field of time series preprocessing using adaptive decomposition

PUBLICATIONS

JOURNAL
INTERNATIONAL:

- [1]. Review of Adaptive Decomposition-Based Data Preprocessing for Renewable Generation Rich Power System Applications, **Das S**, Prusty B R, Bingi K, Journal of Renewable and Sustainable Energy(AIP)vol. 13, no. 6, (2021)1-20
- [2]. Whirl Orbital Response Control of Micro Rotors With Flexural Modes, Abhro Mukherjee, **Satyabrata Das**, Sabyasachi S Sengupta, The International Journal of Acoustics and Vibration , vol. 23, no. 3,(2018)343-354
- [3]. Numerical Simulation of a small size rotor with self induced instability using sliding mode and FOPID controller and their comparison" International Journal of Mechatronics and Applied Mechanics, Abhro Mukherjee, **Satyabrata Das**, International Journal of Mechatronics and Applied Mechanics (2018) vol. 3,(2018), 28-36
- [4]. A Simple Linear Quadratic Regulator Approach for Active Stabilization of Mini Rotors Due to Spinning Dissipation, Abhro Mukherjee, **Satyabrata Das**, Journal of International Information and Engineering Technology Association, No.4,Vol.73(2018),171-181
- [5]. Stabilizing Varying Eccentricity Problem In Hydrodynamic Bearings Using Elegant Control Strategies, S.J Siva Abhishek, Niranjana Kumar Gupta, Abhro Mukherjee, **Satyabrata Das**, Journal of Instrumentation Technology & Innovations, No.3,Vol.6(2016),14-20

CONFERENCE

Conferences:

- [1]. Time Series Decomposition Techniques for Renewable Generation Applications, **Satyabrata Das**, B Rajanarayan Prusty, Kishore Bingi, Kaibalya Prasad Panda, and Gayadhar Panda,1st International Symposium on Sustainable Energy and Technological Advancements ISSETA 2021: 24th – 25th September, 2021
- [2]. Conformal Mapping Based Control Approach for Rotor Supported On Journal Bearing Aayush Bhadani, Abhro Mukherjee and **Satyabrata Das**, Contemporary issues in computing(CIC), Intelligent Computing and Industry Design(ICID) 2(1),pp.134-136,2020
- [3]. Performances Comparison of Nonlinear Hydrodynamic Journal Bearing with Rotor Internal Damping Using Optimal and Fractional Order Controllers Aniruddha Roy, Abhro Mukherjee and **Satyabrata Das**, CALCON, pp 418-422, IEEE Conference2017
- [4]. Stabilizing Hydrodynamic Bearing Using H^∞ Loop Shaping Design Procedure Abhro Mukherjee, Satyabrata Das, S.J Siva Abhishek, Niranjana Kumar Gupta, Proceedings XIII Control Instrumentation System Conference (18thoct'2016)
- [5]. Stabilizing Internal Damping in Hydrodynamic Bearings Using Elegant Control Strategies S.J Siva Abhishek, Niranjana Kumar Gupta, Abhro Mukherjee, **Satyabrata Das**, Proceedings XIII Control Instrumentation System Conference (18thoct'2016)
- [6]. Stabilizing Hydrodynamic Bearings using Elegant Control Strategies S.JSiva Abhishek, Niranjana Kumar Gupta, Abhro Mukherjee, **Satyabrata Das**, Proceedings XIII Control Instrumentation System Conference(18th oct' 2016)

- [7]. Kalman filter based optimal control approach for attitude control of a missile, N Patro, A Mukherjee, K Halder, A Rout and **Satyabrata Das**, International conference on computer communication and Informatics (ICCCI) Coimbatore, pp 4-6, 2013
- [8]. Color Image Enhancement by Scaling Luminance and Chromatic Components, **Satyabrata Das**, Sukanti Pal, National Conference at H.B.T.I. Kanpur 26th-27th Mar'2011
- [9]. A Novel Technique for realizing on line Linear Phase IIR Filters, **Satyabrata Das**, Amit Dhawan, National Conference at S.R.K.R. Engg. College on 24th-25th June 2005.
- [10]. **Invited talk** at Trident institute of technology Bhubaneswar, from 18/12/2013 to 31/12/2013 on Graphical System Design using LabVIEW during Faculty Development Program

ANY OTHER

WORKSHOP and FDP Organized:

- [1]. Sponsored by TEQIP-III, BPUT, Odisha I have organized a 3-Day workshop on "Signal Processing Techniques for 5G Communication" at NIST from 25th-27th September, 2019.
- [2]. Electronics and ICT Academy approved and supported by Ministry of Electronics and Information Technology (MeitY), Govt. of India, N.I.T. Patna One week FDP Programme on "**Advancement in Signal Processing and Optimization Techniques**" under the scheme of Financial Assistance for setting up Electronics and ICT academies from 3rd-7th June, 2019.
- [3]. Electronics and ICT Academy approved and supported by Ministry of Electronics and Information Technology, (MEITY) Govt. Of India, N.I.T. Warangal One week FDP Programme on "**DSP & Sensors**" under the scheme of Financial Assistance for setting up Electronics and ICT academies from 10th-14th December, 2018.
- [4]. AICTE approved SDP on 'Advanced DSP Implementation using FPGA and DSP Processor', 25th Aug-31st Aug 2009