

Profile Page



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Research Interests :

Modeling of physiological systems and associated diseased conditions; cardiovascular system dynamics

Other Profile Links :

Google Scholar Link :

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Journal Publications :

Year	Journal	Publication
2019	International Journal of Prognostics and Health Management, vol. 10 (Special Issue PHM for Human Health and Performance) 002, pages: 9.	Karan Jain, Arijit Guha, and Amit Patra. "A particle filter based framework for the prognosis of atherosclerosis via lumped cardiovascular modeling."
2018	Mathematical Biosciences, vol. 304, pp. 79-88.	Karan Jain, Srinivasu Maka, and Amit Patra. "Modeling of cardiovascular circulation for the early detection of coronary arterial blockage."

Conference Publications :

Year	Conference	Publication
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2019	41st Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC), Berlin, Germany.	Ashutosh Dash, Karan Jain, Nirmalya Ghosh, Amit Patra, Anirban D. Choudhury. "Blood Pressure Estimation Based on Pulse Arrival Time and Heart Rate: A Correlation Analysis for Critically Ill Patients."
2018	18th IFAC Symposium on System Identification (SYSID), Stockholm, Sweden.	Karan Jain, Amit Patra, and Srinivasu Maka. "Modeling of the human cardiovascular system for detection of atherosclerosis."
2016	Systems in Medicine and Biology (ICSMB), 2016 International Conference on. IEEE. Kharagpur, India.	Karan Jain, and Srinivasu Maka. "Sensitivity analysis and parameter estimation of cardiovascular model."
2016	Systems in Medicine and Biology (ICSMB), 2016 International Conference on. IEEE. Kharagpur, India.	Tanmay Pal, Karan Jain, and Srinivasu Maka. "Delay dependent analysis of respiratory system- Application to obstructive sleep apnea."
2014	Students' Technology Symposium (TechSym), 2014 IEEE. Kharagpur, India.	Karan Jain, Tanmay Pal, and Srinivasu Maka. "Stability issues in a cardiovascular circulation."
2014	Students' Technology Symposium (TechSym), 2014 IEEE. Kharagpur, India.	Tanmay Pal, Karan Jain, and Srinivasu Maka. "Stability analysis of Human Respiratory System."

Patents :

Name	Reg./Ref. No.	Date of Award/Filing	Organization	Status
Model of the Baroreflex mechanism during postural changes	21528	7-9-2019	IIT Kharagpur	Filed