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Confirmation Number: 1847383

Template: NSERC_Researcher

Dr. Rabin Raut

Correspondence language: English

Contact Information

The primary information is denoted by (*)

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Dr. Rabin Raut

Language Skills

Language	Read	Write	Speak	Understand	Peer Review
Bengali	Yes	Yes	Yes	Yes	Yes
English	Yes	Yes	Yes	Yes	Yes
French	Yes	No	No	Yes	No
Hindi	Yes	No	Yes	Yes	No

Degrees

- 1988/2 Post-doctorate, Electrical Engineering, University of Ottawa
Supervisors: W.R. Steenaart, 1986/6 - 1988/5
- 1984/6 Doctorate, Electrical Engineering, Concordia University
- 1968/7 Master's non-Thesis, Advanced Electronics, University of Calcutta
- 1967/7 Bachelor's Equivalent, Radio physics & electronics, University of Calcutta

User Profile

Research Specialization Keywords: Analog, Bio electronics, BJT circuits, CMOS, Current mode filters, Filters, Low power, Radiofrequency, Transimpedance, Wide band

Employment

- 2011/6 Professor
Electrical and Computer Engineering, Concordia University
Full-time, Sessional, Professor
Tenure Status: Tenure
- 1998/6 - 2011/5 Associate Professor
Electrical and Computer Engineering, Concordia University
Full-time, Associate Professor
Tenure Status: Tenure
- 1991/6 - 1998/5 Assistant Professor
Electrical and Computer Engineering, Concordia University
Full-time, Assistant Professor
Tenure Status: Tenure Track
- 1989/7 - 1991/5 Sr. IC Design Engineer
VLSI design, NovAtel Communication Ltd

1988/3 - 1989/6	Research Associate Electrical and Computer Engineering, Concordia University Full-time, Term Tenure Status: Non Tenure Track
1985/11 - 1988/2	Post Doctoral Fellow Electrical Engineering, University of Ottawa Full-time Tenure Status: Non Tenure Track
1985/2 - 1985/10	Member, Scientific Research Staff EMC/EMI, Management Information Security Tempest
1983/8 - 1985/1	Sr. Radio Frequency Design Engineer Space Research, Canadian Astronautics Ltd
1979/1 - 1983/7	Graduate Research Assistant Electrical and Computer Engineering, Concordia University Full-time Tenure Status: Non Tenure Track
1972/9 - 1978/12	Lecturer Electronics and Communication Engineering, Indian Institute of Technology, Kharagpur Full-time Tenure Status: Tenure
1968/11 - 1972/8	Electronics Engineer Satellite System, Indian Space Research Organization

Leaves of Absence and Impact on Research

Other Circumstances, Concordia University

My wife had a serious burn accident in 2007. She was in ICU for seven weeks. She returned home after about four months in the hospital. I was frantically searching on the internet for a surgery (glottic stenosis issue) for her while such surgery had a history of success mostly for young children. It was only in 2009 when the surgery could be done. I lost the discovery grant for 2011/2012. Since that time, my DG application had been being returned with no funding until 2023-24. After my sabbatical during 2010-2011, I wished to work with host of research students around me. I have been trying to fulfill my dreams only by bits and pieces depending upon Summer research students, my own hands on work, and collaborative support from other researchers.

2022/7 - 2023/6

Sabbatical, Concordia University

Was relieved from teaching courses over a 12-month period. Did investigations on (i) Human breathing gas to determine blood cholesterol. Upon search over articles since 2010, I came across an article published in 2021 which conveyed negatively on the possibility of detecting cholesterol in the Isoprene gas, which is a constituent of breathing gas. (ii) Interleaved pole-zero placement technique to control inter-symbol interference in high speed digital data transmission. Preliminary numerical analysis showed great potential of this approach with applications to wide-band amplifiers, such as transimpedance amplifier employed in photonics. Availability of external funding could help make more progress in this direction.

Student/Postdoctoral Supervision

Master's Thesis [n=3]

2020/9 - 2022/11 Co-Supervisor	Asamoah, Kwabena (Completed) , Concordia University Thesis/Project Title: Detection/Elimination of Artifact Signals using Analog Circuit Techniques Present Position: Network operations control center technician, Northwestel
2016/5 - 2018/8 Co-Supervisor	Navid Hakimitoroghi (Completed) , Concordia University Thesis/Project Title: A STUDY ON VIBRATION SENSORS WITH APPLICATION IN STRUCTURAL HEALTH MONITORING (SHM) Present Position: Embedded Software Developer, MY01 Inc., Montreal, Canada
2016/1 - 2018/8 Co-Supervisor	Xin Cui (Completed) , Concordia University Thesis/Project Title: A STUDY OF VOLTAGE-MODE AND CURRENT-MODE FILTERS USING MODIFIED CURRENT FEEDBACK OPERATIONAL AMPLIFIER Present Position: Electronics Engineer, Physics Dept., McGill University, Canada

Event Administration

2020/10 - 2020/10	Co chair, ISCAS 2020 (virtual), Conference, 2020/10 - 2020/10
2020/4 - 2020/6	Publication Committee member, NEWCAS 2020 (virtual meet), Conference, 2020/6 - 2020/6

Committee Memberships

2024/9	Committee Member, Manuscripts review for 2025, ISCAS
2023/9	Committee Member, Review of manuscripts for 2024, ISCAS
2023/9	Committee Member, PhD Defense, Concordia University
2023/8	Group Chair, Ph.D. Defense, Concordia University
2023/7	Committee Member, PhD Examination Committee, Concordia University
2023/4	Committee Member, M.A.Sc defense, Concordia University
2023/4	Committee Member, M.A.Sc defense, Concordia University
2021/11	Committee Member, PhD proposal committee, Concordia University
2021/7	Chair, PhD Examination Committee, Concordia University
2021/6	Chair, PhD Examination Committee, Concordia University
2021/4	Chair, PhD Examination Committee, Concordia University
2020/9	Committee Member, PhD comprehensive, Concordia University
2020/9	Chair, PhD Examination Committee, Concordia University
2020/8	Committee Member, PhD comprehensive, Concordia University
2020/8	Chair, PhD Examination Committee, Concordia University

2020/7	Committee Member, MASc Entrance Award, Concordia University Reviewing applications and sending recommendations to the committee chair
2020/7	Committee Member, PhD Entrance Awards, Concordia University Reviewing applications and sending recommendations to the committee chair
2019/4	Chair, PhD Comprehensive, Concordia University
2018/10	Chair, PhD Comprehensive, Concordia University
2018/9	Chair, PhD Comprehensive, Concordia University
2018/3	Chair, PhD Examination Committee, Concordia University
2017/10	Chair, PhD Examination Committee, Concordia University
2017/4	Chair, PhD Examination Committee, Concordia University
2017/3	Chair, PhD Examination Committee, Concordia University
2017/1	Chair, PhD Examination Committee, Concordia University
2016/12	Committee Member, PhD Examination Committee, McGill University
2016/10	Chair, PhD Examination Committee, Concordia University
2016/9	Chair, PhD Examination Committee, Concordia University
2016/8	Chair, Ph.D. Examination Committee, Concordia University
2017/7 - 2018/6	Committee Member, Dept Curriculum Committee, Concordia University
2018/4 - 2018/4	Chair, PhD comprehensive, Concordia University
2018/4 - 2018/4	Chair, PhD Examination Committee, Concordia University

Other Memberships

2023/4	Reviewer of Articles, BioCAS international conference 2023
2021/4	Reviewer of articles, BioCAS international Conference 2021
2021/1	Reviewer of article, Micro Electronics Journal
2020/12	Reviewer of article, Circuits Systems and Signal Processing
2020/1	Review Committee member, NEWCAS Conference 2020 Assigning articles to be reviewed by a pool of listed international experts
2019/1	Reviewer of articles, NEWCAS Conference 2020
2022/4 - 2022/6	Reviewer of articles, BioCAS international conference 2022
2021/11 - 2022/1	Reviewer of manuscripts, International Symposium Circuits and Systems 2022 Reviewing manuscripts submitted to ISCAS 2022 conference

Presentations

1. Navid Hakimitoroghi*, Rabin Raut, Ashutosh Bagchi, Mehrdad Mirshafiei. (2020). (online) An Analog Circuit Technique to Improve a Geophone Frequency Response for Application as Vibration Sensors. ISCAS 2020 (virtual), seville, Spain
Invited?: No, Keynote?: No

Publications

Journal Articles

1. M. Hasanuzzaman*, B.G.Motlagh, F. Mounaim, A. Hassan, R. Raut, M. Sawan. (2018). Toward an Energy-Efficient High-Voltage Compliant Visual Intra-cortical Multichannel Stimulator. IEEE Trans. on Very Large Scale Integration (VLSI) Systems. 26(5): 878-891.
Published
Refereed?: Yes

Book Chapters

1. Navid Hakimitoroghi*, Rabin Raut, Ashutosh Bagchi, and Mehrdad Mirshafiei. (2018). Compensation techniques for vibration sensors with application in structural health monitoring. Subhas Chandra Mukhopadhyay, Krishanthi P. Jayasundera, Octavian Adrian Postolache. Modern Sensing Technologies. Smart Sensors, Measurement and Instrumentation(29): 367-390.
Published, https://doi.org/10.1007/978-3-319-99540-3_19
Refereed?: Yes

Manuals

1. R. Raut. (2019). Electronics Made Simple- Part I.
In Press
2. Rabin Raut. (2019). Electronics Made Simple - Part II.
In Press

Conference Publications

1. N.Hakimitoroghi*, R. Raut, M. Mirshafiei, and A. Bagchi. (2020). An Analog Circuit Technique to Improve a Geophone Frequency Response for Application as Vibration Sensors. International Symposium on Circuits and Systems 2020, Seville, Spain,
Conference Date: 2020/10
Poster
Accepted
Refereed?: Yes, Invited?: No

Intellectual Property

Patents

1. An Analog Circuit Technique to Remove Artifacts from Bioelectric Signals. Canada. DOI-2024-006. 2023/06/29.
Patent Status: Pending
Inventors: Rabin Raut