RESEARCH PUBLICATIONS: 150

I. PATENTS


II. JOURNALS AND INVITED BOOK CHAPTERS

a. IEEE AND IET


13. Anirban Sengupta, Deepak Kachave, Dipanjan Roy "Low Cost Functional Obfuscation of Reusable IP Cores used in CE Hardware through Robust Locking", IEEE Transactions on Computer Aided Design of Integrated Circuits & Systems (TCAD), Accepted, 2018


15. Anirban Sengupta, Deepak Kachave "Spatial and Temporal Redundancy for Transient Fault Tolerant Datapath", IEEE Transactions on Aerospace and Electronic Systems, Accepted, 2018


28. Dipanjan Roy, Anirban Sengupta "Obfuscated JPEG Image Decompression IP Core for Protecting Against Reverse Engineering", IEEE Consumer Electronics, Accepted, May 2018


38. Dipanjan Roy, Pallabi Sarkar, Anirban Sengupta, Mrinal Kanti Naskar, "Optimizing DSP IP Cores using Design Transformation", IEEE Consumer Electronics, Accepted, 2018


41. Anirban Sengupta, SP Mohanty, Garrett Rose "Hardware - Assisted Design for Security and Protection of Consumer Electronics IP ", IET Computers and Digital Techniques, Accepted, June 2018


b. ELSEVIER AND SPRINGER


**c. OTHER PUBLISHERS**


**III. REFEREED PEER-REVIEWED CONFERENCES**


87. Dipanjan Roy, Anirban Sengupta "Reusable Intellectual Property Core Protection for Both Buyer and Seller", Proc. 36th IEEE International Conference on Consumer Electronics (ICCE) 2018, Las Vegas, Accepted, Jan 2018


112. **Anirban Sengupta** “Reliability and Security Aware RTL/System Design”, *Special Session in IEEE iinis 2015*, Participants: Intel Corporation, Broadcom Corporation (USA), Pennsylvania State University (USA) and Indian Institute of Science, Accepted.


137. Anirban Sengupta, Reza Sedaghat "Rapid Exploration of Power-Delay Tradeoffs using Hybrid Priority Factor


144. **Anirban Sengupta**, Prasenjit Pal and S.K. Roy (Aug 1st & 2nd - 2008) "Problems Associated with CDMA Based Communication Systems Results and Discussions", Accepted for poster presentation in the IEEE and IEI, the National Conference on "Device, intelligent systems and communication& networking", Paper No: CN_27.

**IV. THESIS/DISSERTATION**


**IV. TECHNICAL REPORTS FOR INDUSTRY/IP OFFICE**


150. **Anirban Sengupta" Performance Analysis of FPGA based ASP vs. Embedded Microblaze RISC Processor", No. of pages: 46, Organization: Ryerson University (OPRAL Research Lab), (Co-author: Pallabi Sarkar)
INDUSTRY/PATENT CITATIONS AND TECHNOLOGY TRANSFER OF MY PATENTS

1. Patent 1666/MUM/2015 – Accepted for commercialization by VividSparks IT Solutions Pvt Ltd.
2. Patent 4466/MUM/2015 – Accepted for commercialization by VividSparks IT Solutions Pvt Ltd.
3. Patent no. US 8,397,204 – Cited/used by the following industries:

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<th>Filing date</th>
<th>Publication date</th>
<th>Applicant</th>
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<tr>
<td>US8262199</td>
<td>May 27, 2011</td>
<td>Sep 2, 2014</td>
<td>Ryerson University</td>
</tr>
<tr>
<td>US9111059</td>
<td>Nov 1, 2013</td>
<td>Aug 18, 2015</td>
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<td>US9337845</td>
<td>Jun 16, 2014</td>
<td>May 10, 2016</td>
<td>International Business Machines Corporation</td>
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<td>US9429921</td>
<td>Sep 17, 2012</td>
<td>Aug 30, 2016</td>
<td>Siemens Aktiengesellschaft</td>
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<td>US9529951</td>
<td>May 29, 2014</td>
<td>Dec 27, 2016</td>
<td>International Business Machines Corporation</td>
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<td>US20120303560</td>
<td>May 27, 2011</td>
<td>Nov 29, 2012</td>
<td>Reza Sedaghat</td>
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<td>US20140074306</td>
<td>Sep 17, 2012</td>
<td>Mar 13, 2014</td>
<td>Siemens Corporation</td>
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<td>US20140165021</td>
<td>Nov 1, 2013</td>
<td>Jun 12, 2014</td>
<td>Stc.Unm</td>
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4. Patent no CA2726091 A1 – Cited by:

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MAJOR AWARDS/HONOURS


Awarded and Honored by NIT Durgapur for conducting first ever TEQIP sponsored workshop on "Hardware Security and its Applications".

Elevated to IEEE Senior Member Grade.

Inducted into Executive Committee of IEEE Computer Society Technical Committee on VLSI in 2017.

Awarded prestigious national award *‘Sir Visvesvaraya’ Faculty Research Fellow* (Awarded by Ministry of Electronics & IT).

Awarded *‘Best Research Paper Award 2017’* by Indian Institute of Technology Indore.

Awarded ‘Excellent’ ratings by expert committee of Department of Science & Technology (DST) based on the performance (output) in externally funded project in 2017.

Invited to join Editorial Board as Associate Editor of the prestigious IEEE Transactions on Aerospace & Electronic Systems.

Guest Editor in prestigious IEEE Transactions on VLSI Systems from Sep 2016.

Executive Editor of prestigious IEEE Consumer Electronics Magazine from Aug 2016.

Associate Editor of IEEE Access Journal from 2016.
Awarded by prestigious ‘IEEE Access Journal’ on July 2016 for research contributions in advancing engineering profession.

**Associate Editor** of IET Journal on Computer & Digital Technique from Dec 2015

**Associate Editor** of IEEE VLSI Circuits & Systems Letter (IEEE Computer Society) from 2015


**Honorary Chief Scientist** as external affiliation by VividSparks IT Solutions Pvt Ltd (an electronics industry) from Aug 2016.

2 **Patents** from IIT Indore (4466/MUM/2015 & 1666/MUM/2015) accepted for commercialization/licensing/product integration by VividSparks IT Solutions Pvt Ltd. (NDA signed).

Invited as ‘Program Chair’ of 36th IEEE International Conference on Consumer Electronics (ICCE), Las Vegas on March 2017

Invited as ‘Program Chair’ of 15th IEEE International Conference on Information Technology (ICIT) on May 2016.

Invited as ‘Program Chair’ of 3rd IEEE iNIS 2017 on Aug 2016.

Invited as ‘Symposium Chair’ for IEEE iNIS 2016.

Awarded **Ontario Graduate Scholarship (OGS)** of $15,000 for 2012/2013 by Ministry (Provincial Level).

Awarded **Ontario Center of Excellence (OCE)** award of $10,000 for Research (independent fund) by OPR-AL, Ryerson University, 2012.

Awarded **Graduate Research Excellence Award** of $2,500 in PhD category at Ryerson University for 2011.

Awarded **Ontario Graduate Scholarship (OGS)** of $15,000 for 2011/2012 by Ministry (Provincial Level).

Awarded **Graduate Research Excellence Award** of $2,500 as Rank # 1 in PhD category at Ryerson University for 2010.

Awarded **Ontario Graduate Scholarship (OGS)** of $15,000 for 2010/2011 by Ministry (Provincial Level).

Nominated for 2010 **NSERC Innovation Challenge Award (ICA)** by OVPRI, Ryerson University.

Awarded **Ontario Graduate Scholarship (OGS)** of $15,000 for 2009/2010 by Ministry (Provincial Level).

Nominated for Governor General’s Gold Medal for the M.A.Sc Thesis by the Committee at Ryerson University.

Awarded **Ryerson Graduate Award (RGA)** for $3000 - 2008 by department of Electrical and Computer Engineering.

Awarded **RGA Electrical Engineering award** for $1000 by Electrical and Computer Engineering, Ryerson University - 2009.

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**NEWS/MEDIA/PRESS COVERAGE OF MY PROFESSIONAL WORK**

- “IET member receives Distinguished Lecturer accolade”, **IET INTERNATIONAL NEWS**, Nov 9, 2017