

Sanjit Kumar Roy

PERSONAL DATA

CURRENT POSITION: Research Scholar, Dept. of CSE, IIT Guwahati.
MAILING ADDRESS: Bhyabla, Basirhat, North 24 Parganas,
West Bengal, Pin - 743422, India.
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EDUCATION

- **(Current Affiliation:)**
Indian Institute of Technology Guwahati, Guwahati, India JUL. 2013 -TILL DATE
Doctor of Philosophy (Tentative Thesis submission by mid of February, 2021).
Thesis Title: New Approaches to Computation-Communication Co-scheduling in Real-time Cyber-Physical Systems.
Supervisor: Dr. Arnab Sarkar and Dr. Chandan Karfa (Administrative Supervisor).
- **National Institute of Technology Durgapur**, Durgapur, India JUN. 2013
Master of Technology in Information Technology
Thesis Title: Application of Distributed Key Generation in Secured Sealed-Bid Auction Mechanism.
Supervisor: Dr. Jaydeep Howlader.
CGPA: 8.96/10
- **West Bengal University of Technology**, Kolkata, India AUG. 2008
Bachelor of Technology in Information Technology
DGPA: 7.26/10

RESEARCH INTEREST

Real-time Systems, Cyber-Physical Systems, Embedded Systems, Mixed-critical Systems, Scheduling

PUBLICATIONS

Journal Papers

Published/Submitted

1. **Sanjit Kumar Roy**, Rajesh Devaraj, Arnab Sarkar, Sayani Sinha and Kankana Maji. "Contention-aware optimal scheduling of real-time precedence-constrained task graphs on heterogeneous distributed systems." *Elsevier Journal of Systems Architecture (JSA)*. Volume 105, May 2020, 101706.
2. **Sanjit Kumar Roy**, Arnab Sarkar and Rahul Gangopadhyay. "Processor and Bus Co-scheduling Strategies for Real-time Tasks with Multiple Service-levels." *Springer Journal of Scheduling (JOSH)*, (Major revision received).
3. **Sanjit Kumar Roy**, Rajesh Devaraj and Arnab Sarkar. "SAQA: Quality-level Aware Scheduling of Task Graphs on Heterogeneous Distributed Systems." *ACM Transactions on Embedded Computing Systems (ACM TECS)*, (Review response submitted).
4. **Sanjit Kumar Roy**, Rajesh Devaraj and Arnab Sarkar. "Contention Cognizant Scheduling of Task Graphs on Shared Bus based Heterogeneous Platforms." *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (IEEE TCAD)*, (Minor revision received).
5. **Sanjit Kumar Roy**, Rajesh Devaraj and Arnab Sarkar. "Energy-aware Co-scheduling of Multiple Task Graphs on Shared Bus based Heterogeneous Platforms." (Manuscript under preparation).

Conference Papers

1. **Sanjit Kumar Roy**, Rajesh Devaraj, Arnab Sarkar, Sayani Sinha and Kankana Maji. "Optimal scheduling of precedence-constrained task graphs on heterogeneous distributed systems with shared buses." *IEEE 22nd International Symposium on Real-Time Distributed Computing (ISORC)*. Pages 185-192, 2019.
2. **Sanjit Kumar Roy**, Rajesh Devaraj and Arnab Sarkar. "Optimal scheduling of PTGs with multiple service levels on heterogeneous distributed systems." *American Control Conference (ACC)*. Pages 157-162, 2019.
3. Jaydeep Howlader, **Sanjit Kumar Roy**, Ashis Kumar Mal. "Practical Receipt-Free Sealed-Bid Auction in the Coercive Environment". *16th International Conference on Information Security and Cryptology (ICISC)*, Seoul, Korea, Nov. 2013.

TECHNICAL SKILLS

C, Python, Matlab, Java, CPLEX.

SCHOLARSHIPS & AWARDS

- Received **Scholarship** from **MHRD, Govt. of India** to pursue Ph.D. at IIT Guwahati, India. JUL. 2013
- Received **Scholarship** from **MHRD, Govt. of India** to pursue M.Tech at NIT Durgapur, India. AUG. 2011

REFERENCES

- **Dr. Arnab Sarkar**
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Kharagpur - 721302, West Bengal, India
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- **Dr. Chandan Karfa**
Professor, Dept. of Computer Science & Engineering, IIT Guwahati,
Guwahati - 781039, Assam, India
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- **Dr. Santosh Biswas**
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