

# SOURAV KANTI ADDYA

Department of Computer Science & Engineering ◇ Indian Institute of Technology Kharagpur- 721302  
(+91) 9437141181 ◇ kanti.sourav@gmail.com

**DBLP:** <https://dblp.org/pid/177/2106>

## RESEARCH INTEREST

---

Cloud Computing, FOG Computing, IoT, Blockchain

## CAREER SUMMARY

---

- # **PDF** at IIT Kharagpur, India (May, 2018-till date).
- # **PhD** from NIT Rourkela, India (Jan, 2013-Feb, 2018).
- # **Research Visitor** at San Diego State University, CA, USA (Jan-Mar, 2015).
- # M. Tech from NIT Rourkela (2010).

## KEY PUBLICATIONS

---

### Journals

### PUBLISHED/ACCEPTED

- **Sourav Kanti Addya\***, Ashok Kumar Turuk, Anurag Satpathy, Bibhudatta Sahoo and Mahasweta Sarkar, *A Strategy For Live Migration of Virtual Machines In A Cloud Federation*, **IEEE Systems Journal**, 13(3), Pages 2877 - 2887, 2019 DOI: 10.1109/JSYST.2018.2872580.
- Anurag Satpathy, **Sourav Kanti Addya\***, Ashok Kumar Turuk, Bansidhar Majhi, Gadadhar Sahoo, *Crow Search Based VM Placement Strategy in Cloud Data Centers with Live Migration*, **Computers & Electrical Engineering, An International Journal, Elsevier**, 69, Pages 334-350, 2018.
- **Sourav Kanti Addya\***, Ashok Kumar Turuk, Bibhudatta Sahoo, Anurag Satpathy and Mahasweta Sarkar, *A Game Theoretic Approach to Estimate Fair Cost of VM Placement in Cloud Data Center*, **IEEE Systems Journal**, 12(4), Pages 3509-3518, 2018 DOI: 10.1109/JSYST.2017.2776117.
- **Sourav Kanti Addya\***, Ashok Kumar Turuk, Bibhudatta Sahoo, Mahasweta Sarkar and Sanjay Kumar Biswash, *Simulated Annealing based VM Placement Strategy to Maximize the Profit of Cloud Service Providers*, **Engineering Science and Technology, an International Journal (JESTECH), Elsevier**, 20 (4), Pages 1249-1259, 2017.

### Patent

- **Sourav Kanti Addya\***, Ashok Kumar Turuk, Bibhudatta Sahoo, and Anurag Satpathy, *A Stable Cloud-Alliance to Provide Uninterruptable Service*, **Indian Patent Filed**, File No. 201931006455, Date Feb 19, 2019.

### International Conferences

- Shubha Brata Nath, Subhrendu Chattopadhyay, Raja Karmakar, **Sourav Kanti Addya**, Sandip Chakraborty, Soumya K Ghosh, *PTC: Pick-Test-Choose to Place Containerized Micro-services in IoT*, **IEEE GLOBECOM**, Waikoloa, Hawaii, USA, December 9-13, 2019. (Accepted)
- **Sourav Kanti Addya**, Anurag Satpathy, Bishakh Chandra Ghosh, Sandip Chakraborty and Soumya K. Ghosh, *Power and Time aware VM Migration for Multi-tier Applications over Geo-distributed Clouds*, in proc. of the **2019 IEEE International Conference on Cloud Computing (IEEE CLOUD 2019)**, Milan, Italy, July 08-13, 2019. (Acceptance Rate: 20.8%)

- Bishakh Chandra Ghosh, **Sourav Kanti Addya**, Anurag Satpathy, Soumya K. Ghosh and Sandip Chakraborty, *Towards a Democratic Federation for Infrastructure Service Provisioning*, in proc. of the **2019 IEEE International Conference on Services Computing (IEEE SCC 2019)**, Milan, Italy, July 08-13, 2019. (Acceptance Rate: 17%)
- **Sourav Kanti Addya\***, Anurag Satpathy, Sandip Chakraborty and Soumya K Ghosh, *Optimal VM Coalition Selection for Multi-Tier Applications Over Multi-Cloud Broker Environment*, in proc. of the **11<sup>th</sup> International Conference on Communication Systems & Networks (IEEE/ACM COMSNETS 2019)**, Bangalore, January 07 - 11, 2019.
- **Sourav Kanti Addya\***, Ashok Kumar Turuk, Bibhudatta Sahoo and Mahasweta Sarkar, *A Hybrid Queuing Model for Virtual Machine Placement in Cloud Data Center*, in proc. of the **IEEE International Conference on Advanced Networks and Telecommunications Systems (IEEE ANTS 2015)**, Kolkata, India, December 15-18, 2015

### Book Chapters

- **Sourav Kanti Addya\***, Bibhudutta Sahoo and Ashok Kumar Turuk, *Virtual Machine Placement Strategy for Cloud Data Center*, In Enterprise Management Strategies in the Era of Cloud Computing, IGI Global, 261-287, ISBN- 978-1-466-68339-6 (April 2015).

### Posters and Demos

- **Sourav Kanti Addya\***, Ashok Kumar Turuk, *VM Placement Technique*, **4th International Conference On Advanced Computing And Communication Systems (ICACCS)**, India Conference (INDICON), 2014 Annual IEEE, Pune, India, December 2014.

\* corresponding author

## EDUCATION

---

- # **National Institute of Technology, Rourkela, India** *February 2018*  
 PhD in Computer Science & Engineering  
**Enrolment:** *January 3, 2013*; **Submission:** *August 31, 2017*; **Degree Award:** *February 13, 2018*  
 Area: Cloud Computing  
 Thesis title: *Virtual Machine Placement and Pricing on Cloud Data Center.*  
 Supervisor: Dr. Ashok Kumar Turuk  
 Overall GPA: 9.07
- # **National Institute of Technology, Rourkela, India** *June 2010*  
 M.Tech in Computer Science & Engineering  
 July 2008 to June 2010  
 Thesis title: *A Technique for Communication of Distance Node On Key Pre-distribution In Wireless Sensor Networks.*  
 Supervisor: Dr. Ashok Kumar Turuk  
 Overall GPA: 7.77
- # **West Bengal University of Technology, India** *June 2007*  
 B.Tech in Computer Science & Engineering  
 July 2003 to June 2007  
 Overall GPA: 7.43

## TECHNICAL STRENGTHS

---

<b>Computer Languages</b>	C++, Python.
<b>Simulator</b>	CloudSim 3.0.3
<b>Hardware</b>	Raspberry Pi 3

## RESEARCH EXPERIENCE/ INTERNSHIP

---

- # Institute **Post-Doctoral Fellow** in Department of Computer Science and Engineering at **Indian Institute of Technology, Kharagpur, India** with Dr. Soumya Kanti Ghosh and Dr. Sandip Chakraborty from *May 2018 - till date*.
- # **Research Visitor** at Wireless Networking Research Lab, **San Diego State University, CA, USA** under Dr. Mahasweta Sarkar from *January-March 2015*.
- # **Research Intern** on Key Pre-distribution in Sensor Network at **Indian Statistical Institute, Kolkata** under supervision of Prof. Bimal K. Roy from *11 May 2009- 15 July 2009*.

## PROFESSIONAL ACTIVITY

---

- # **TPC member** of COMSNETS 2020, Bangalore, India.
- # **TPC member** of IoTsm 2018, Imperial College London, London, UK.
- # **Co-editor** of edited book titled Resource management and efficiency in cloud computing, publisher IGI GLOBAL, November 2016, ISBN13: 9781522517214.
- # **TPC member** of IEEE GLOBECOMM 2015, San Diego, USA.
- # **Reviewer** of Mobile Networks and Applications, Springer.
- # **Reviewer** of IEEE System Journal, IEEE Transactions on Sustainable Computing..
- # **Reviewer** of Computers & Electrical Engineering, An International Journal, Elsevier.

## PROFESSIONAL SOCIETY MEMBERSHIP

---

- # **Associate Life Member** of Cryptology Research Society of India.
- # **Member** IEEE & ACM.

## ACHIEVEMENTS

---

- # Graduate Aptitude Test in Engineering (GATE) Score 397, Percentile 93.59 on Computer Science in 2008.
- # Received MHRD, Govt. of India fellowship for PhD in 2013.
- # Received grand from TEQIP II, MHRD, Govt. of India for Foreign Internship at San Diego State University, USA in 2015.

## MENTORING

---

- # **Shubha Brata Nath**, PhD scholar, Dept. of CSE, IIT Kharagpur, working on *Microservice placement in Fog-Cloud*, 2018- continuning.

- # **Bishakh Chandra Ghosh**, PhD scholar, Dept. of CSE, IIT Kharagpur, working on *Cloud Federation*, 2018- continuing.
- # **Anurag Satpathy**, Thesis title: *Virtual Machine Placement in Cloud Data Center*, work done at NIT Rourkela, Graduated (M. Tech) from BIT Mesra, 2017.
- # **Soumay Ranjan Moharana**, Thesis title: *Key Distribution in IoT Networks*, work done at NIT Rourkela, Graduated (M. Tech) from BIT Mesra, 2017.

## EXTRA CURRICULUM ACTIVITIES

---

- # Elected Cultural Secretary of NIT Rourkela 2009-2010.
- # Photography
- # **PUBLICATION: RAI**, an anthology of Bengali poems published by Prathivas in Kolkata Book fair 2010.

## PERSONAL INFORMATION

---

**Date of Birth:** March 16, 1985  
**Nationality:** Indian  
**Marital Status:** Married  
**Parents:** Late Susanta Bhusan Addya & Mrs Gitanjali Addya

## REFERENCES

---

- # **Dr. Soumya K. Ghosh** *Professor & National Geospatial Chair Professor (DST)*  
Department of Computer Science & Engineering  
Indian Institute of Technology Kharagpur- 721302, West Bengal, India.  
Institute Website: <http://www.iitkgp.ac.in>  
E-mail: [skg@cse.iitkgp.ac.in](mailto:skg@cse.iitkgp.ac.in) / [skghosh.iitkgp@gmail.com](mailto:skghosh.iitkgp@gmail.com) — Ph: +91 (3222) 282332 / 281440
- # **Dr. Mahasweta Sarkar** *Professor*  
Room 202C, Engineering Building  
Department of Computer and electrical Engineering  
San Diego State university,  
5500 Campanile Drive, San Diego, CA-98182, USA  
Institute Website: <https://sdsu.edu/>  
Email: [msarkar2@mail.sdsu.edu](mailto:msarkar2@mail.sdsu.edu) — Ph: +1 (619) 594-7797
- # **Dr. Ashok Kumar Turuk** *Professor & Head*  
Department of Computer Science & Engineering  
National Institute of Technology Rourkela- 769008, Odisha, India.  
Institute Website: <http://www.nitrkl.ac.in>  
E-mail: [akturuk@nitrkl.ac.in](mailto:akturuk@nitrkl.ac.in) / [akturuk@gmail.com](mailto:akturuk@gmail.com) — Ph: +91 (661) 246 2358 / +919437265366
- # **Dr. Sandip Chakraborty** *Assistant Professor*  
Department of Computer Science & Engineering  
Indian Institute of Technology Kharagpur- 721302, West Bengal, India.  
Institute Website: <http://www.iitkgp.ac.in>  
E-mail: [sandipc@cse.iitkgp.ac.in](mailto:sandipc@cse.iitkgp.ac.in) / [sandipchkraborty@gmail.com](mailto:sandipchkraborty@gmail.com) — Ph: +91 (3222) 282898