# Curriculum Vitae

**Dr. SOUMEN ATTA**
Ph.D. (Engg.), M. Tech. (CSE), B. Tech. (IT), UGC NET, WBSET, GATE

**Postdoctoral Researcher**
**Laboratoire des Sciences du Numérique de Nantes (LS2N)**
**Université de Nantes**
IMT Atlantique
4 Rue Alfred Kastler
Nantes 44307, **France**

**PHONE (M) : +91-9874589084**
(Whatsapp only)
**Email: soumen.atta@gmail.com**
**soumen.atta@univ-nantes.fr**
**Home page:**
**https://www.soumenatta.com/**

**Permanent home address:**
720/1, Ram Mohan Sarani
P.O.- Baidyabati, District- Hooghly
PIN: 712222, West Bengal, India

## CAREER SNAPSHOT:

Currently, I am working at Laboratoire des Sciences du Numérique de Nantes (LS2N), Université de Nantes, IMT Atlantique, Nantes, France as a Postdoctoral researcher. Before joining IMT Atlantique, I have worked as a Postdoctoral researcher for two years at the Faculty of Informatics, Masaryk University, Brno, Czech Republic. I have earned my Ph.D. degree in Computer Science and Engineering from the University of Kalyani, Kalyani, India, on 23rd April 2018. Part of my Ph.D. research work was done at the Faculty of Mathematics and Computer Science, University of Łódź, Poland, as an Erasmus+ Exchange Ph.D. student under the Erasmus+ Credit Mobility Programme. I have completed B. Tech. in Information Technology from Calcutta Institute of Engineering and Management under the West Bengal University of Technology in 2010 and M. Tech. in Computer Science and Engineering from the University of Kalyani in 2012. Moreover, I am UGC NET, WBSET and GATE qualified. Apart from my research experience, I also have one and half years of teaching experience as an Assistant Professor in reputed Indian institutions.

## ACADEMIC CREDENTIALS:

**Ph.D. thesis title: "Algorithmic Studies on Placement of Facilities and Resource Allocation"**
Under the supervision of ***Prof. Priya Ranjan Sinha Mahapatra***, Department of Computer Science and Engineering, University of Kalyani, Kalyani-741235, Nadia, West Bengal, India.

- **Ph.D. degree awarded on 23rd April, 2018.**
- Part of Ph.D. research work was done at the **Faculty of Mathematics and Computer Science, University of Łódź, Poland** as an **Erasmus+ Exchange Ph.D. Student** within the framework of the **Erasmus+ Credit Mobility Programme** under the supervision of **Prof. Dr hab. Stanisław Goldstein.**

| Examination | University/Board | Stream | Year of passing | Marks |
|---|---|---|---|---|
| M. Tech. | University of Kalyani | Computer Science and Engineering | 2012 | 8.63 (DGPA) or 85.50% |
| B. Tech. | West Bengal University of Technology (W.B.U.T.) | Information Technology | 2010 | 8.69 (DGPA) |
| 12th (Higher Secondary) | West Bengal Council of Higher Secondary Education (W.B.C.H.S.E.) | Science | 2006 | 85.2% |
| 10th (Madhyamik) | West Bengal Board of Secondary Education (W.B.B.S.E.) | ———— | 2004 | 81.25% |

- **Graduate Aptitude Test in Engineering (GATE)** qualified.
- **National Eligibility Test (NET) for Assistant Professor** qualified.
- **West Bengal State Eligibility Test (WBSET) for Assistant Professor** qualified.

## Research Experiences and Positions held:

| Position | Institute/University | Duration |
|---|---|---|
| **Postdoctoral Researcher** in Operations Research | Laboratoire des Sciences du Numérique de Nantes (LS2N)<br>**Université de Nantes**<br>IMT Atlantique<br>**France** | August 19, 2021<br>to<br>August 18, 2022 |
| **Postdoctoral Researcher** in Informatics | Faculty of Informatics<br>**Masaryk University**<br>**Czech Republic** | August 19, 2019<br>to<br>August 18, 2021 |
| **Exchange PhD Student** within the framework of **Erasmus+ Credit Mobility Programme** | Faculty of Mathematics and Computer Science<br>**University of Łódź**<br>**Poland** | February 15, 2016<br>to<br>June 30, 2016 |
| **University Research Scholar (Senior)** | Department of Computer Science and Engineering<br>University of Kalyani<br>India | January 11, 2015<br>to<br>January 10, 2018 |
| **University Research Scholar (Junior)** | Department of Computer Science and Engineering<br>University of Kalyani<br>India | January 11, 2013<br>to<br>January 10, 2015 |

## Teaching Experiences and Positions held:

| Position | Institute/University | Duration |
|---|---|---|
| **Assistant Professor (Grade II)**<br><br>Level 11 cell 3 under 7th CPC (at the time of joining) | **Indian Institute of Information Technology Vadodara (IIIT Vadodara)**, Gandhinagar Campus, Guajarat, India<br>(Entire tenure was on leave for postdoctoral research studies.) | July 10, 2019<br>to<br>September 10, 2021 |
| **Assistant Professor** | JIS University, West Bengal, India | July 11, 2018<br>to<br>June 17, 2019 |
| **Assistant Professor**<br>(on contract)<br><br>Under TEQIP-III by NPIU, MHRD, Govt. of India | University College of Engineering and Technology (UCET), Vinoba Bhave University, Jharkhand, India | January 03, 2018<br>to<br>May 10, 2018 |

## List of Research Works as on July 03, 2022:

### Journals:

1. **Soumen Atta**, Priya Ranjan Sinha Mahapatra and Anirban Mukhopadhyay. **"*Solving a new variant of capacitated maximal covering location problem with fuzzy coverage area using metaheuristic approaches*"**, *Computers & Industrial Engineering, Elsevier*, Vol. 170, Article 108315, 2022.
   https://doi.org/10.1016/j.cie.2022.108315
   **(Impact Factor: 5.431, JCR Q1, SCI)**

2. **Soumen Atta**, Priya Ranjan Sinha Mahapatra and Anirban Mukhopadhyay. **"*A multi-objective formulation of maximal covering location problem with customers' preferences: Exploring Pareto optimality-based solutions*"**, *Expert Systems With Applications, Elsevier*, Vol. 186, Article 115830, 2021.
https://doi.org/10.1016/j.eswa.2021.115830
**(Impact Factor: 6.954, JCR Q1, SCI-E)**

3. **Soumen Atta**, Goutam Sen. **"*A new variant of the p-hub location problem with a ring backbone network for content placement in VoD services*"**, *Computers & Industrial Engineering, Elsevier*, Vol. 159, Article 107432, 2021
https://doi.org/10.1016/j.cie.2021.107432
**(Impact Factor: 5.431, JCR Q1, SCI)**

4. **Soumen Atta**, Goutam Sen. **"*Multiple allocation p-hub location problem for content placement in VoD services: a differential evolution based approach*"**, *Applied Intelligence, Springer*, Vol. 50, No. 5, pp. 1573-1589, 2020.
https://doi.org/10.1007/s10489-019-01609-y
**(Impact Factor: 3.325, JCR Q2, SCI)**

5. **Soumen Atta**, Priya Ranjan Sinha Mahapatra and Anirban Mukhopadhyay. "***Solving Tool Indexing Problem using Harmony Search Algorithm with Harmony Refinement***", *Soft Computing, Springer*, Vol. 23, No. 16, pp. 7407–7423, 2019.
https://doi.org/10.1007/s00500-018-3385-5
**(Impact Factor: 3.050, JCR Q2, SCI-E)**

6. **Soumen Atta**, Priya Ranjan Sinha Mahapatra and Anirban Mukhopadhyay. "***Multi-objective Uncapacitated Facility Location Problem with Customers' Preferences: Pareto-based and Weighted Sum GA-based Approaches***", *Soft Computing, Springer*, Vol. 23, No. 23, pp. 12347–12362, 2019.
https://doi.org/10.1007/s00500-019-03774-1
**(Impact Factor: 3.050, JCR Q2, SCI-E)**

7. **Soumen Atta**, Priya Ranjan Sinha Mahapatra. "***L(D, 2, 1)-labeling of Square Grid***", *National Academy Science Letters, Springer*, Vol. 42, No. 6, pp. 485–487, 2019.
https://doi.org/10.1007/s40009-018-0780-5
**(Impact Factor: 0.519, JCR Q4, SCI-E)**

8. **Soumen Atta**, Priya Ranjan Sinha Mahapatra. **"*Population Based Improvement Heuristic with Local Search for Single Row Facility Layout Problem*"**, *Sādhanā, Springer*, Vol. 44:222, pp. 1-19, 2019.
https://doi.org/10.1007/s12046-019-1203-0
**(Impact Factor: 0.849, JCR Q4, SCI-E)**

9. **Soumen Atta**, Priya Ranjan Sinha Mahapatra and Anirban Mukhopadhyay. **"*Solving Maximal Covering Location Problem using Genetic Algorithm with Local Refinement*"**, Soft *Computing, Springer*, Vol. 22, No. 12, pp. 3891-3906, 2018.
https://doi.org/10.1007/s00500-017-2598-3
**(Impact Factor: 2.784, JCR Q2, SCI-E)**

10. **Soumen Atta**, Stanisław Goldstein and Priya Ranjan Sinha Mahapatra. ***"No-hole λ-L (k, k − 1, . . . ,1)-labelings for Square Grid"***, *Bulletin de la Société des Sciences et des Lettres de Łódź, Série: Recherches sur les deformations, Poland, Vol. LXVII, No. 3, pp. 9-19, 2017.*
https://doi.org/10.26485/0459-6854/2017/67.3/1 **(MathSciNet indexed)**

11. **Soumen Atta,** Priya Ranjan Sinha Mahapatra. "***Perturbation-Minimizing Frequency Assignment to Address Short Term Demand Fluctuation in Cellular Network***", *International Journal of Communication Networks and Distributed Systems, Inderscience,* Vol. 21, No. 3, pp. 418–443, 2018.
https://doi.org/10.1504/IJCNDS.2018.094462
**(E-SCI, Scopus indexed)**

12. **Soumen Atta**, Priya Ranjan Sinha Mahapatra and Anirban Mukhopadhyay. "***Solving Uncapacitated Facility Location Problem Using Heuristic Algorithms***", *International Journal Natural Computing Research, IGI Global*, Vol. 8, No. 2, pp. 18-50, 2019.
https://doi.org/10.4018/IJNCR.2019040102
**(Scopus indexed)**

**Conferences:**

1. Petr Valenta, Hana Rudova´ and **Soumen Atta.** ***"A New Variant of Dynamic Pickup and Delivery Problem with Time Windows",*** In Scheduling and Planning Applications woRKshop (SPARK), Pages 1-3, Nancy, France, October 22, 2020. (Workshop paper)
https://icaps20subpages.icaps-conference.org/wp-content/uploads/2020/10/SPARK-2020_paper_3.pdf

2. **Soumen Atta**, Priya Ranjan Sinha Mahapatra and Anirban Mukhopadhyay. "***Deterministic and Randomized Heuristic Algorithms for Uncapacitated Facility Location Problem***", In 6th International Conference on Frontiers in Intelligent Computing: Theory and Applications (FICTA-2017), In book: Intelligent Engineering Informatics, Springer, Bhubaneswar, DOI: 10.1007/978-981-10-7563-6_22, pages 205-216, 2017.
https://doi.org/10.1007/978-981-10-7563-6_22
**(WoS, Scopus indexed)**

3. **Soumen Atta**, Priya Ranjan Sinha Mahapatra and Anirban Mukhopadhyay. "***Solving Uncapacitated Facility Location Problem Using Monkey Algorithm***", In 6th International Conference on Frontiers in Intelligent Computing: Theory and Applications (FICTA-2017), In book: Intelligent Engineering Informatics, Springer, Bhubaneswar, DOI: 10.1007/978-981-10-7566-7_8, pages 71-78, 2017.
https://doi.org/10.1007/978-981-10-7566-7_8
**(Scopus indexed)**

4. **Soumen Atta** and Priya Ranjan Sinha Mahapatra. "***An efficient algorithm for PMFAP***", In 8th International Conference on Communication Systems and Networks (***COMSNETS-2016***), pages 1-8, Bengaluru, IEEE, 2016.
https://doi.org/10.1109/COMSNETS.2016.7440013
**(WoS, Scopus indexed)**

5. **Soumen Atta** and Priya Ranjan Sinha Mahapatra. "***Multi-Objective K-Center Sum Clustering Problem***." In ICT and Critical Infrastructure: Proceedings of the 49th Annual Convention of Computer Society of India-Vol. I, pages 417-425. Springer International Publishing, 2015.
https://doi.org/10.1007/978-3-319-13728-5_47
**(Scopus indexed)**

6. **Soumen Atta** and Priya Ranjan Sinha Mahapatra. "**L (4, 3, 2, 1)-Labeling for Simple Graphs**." In Proceedings of Second International Conference of Information Systems Design and Intelligent Applications – Vol.1, pages 511-518, Kalyani, Springer, 2015.
https://doi.org/10.1007/978-81-322-2250-7_50
**(Scopus indexed)**

7. **Soumen Atta** and Priya Ranjan Sinha Mahapatra. "***Genetic Algorithm Based Approaches to Install Different Types of Facilities.***" In ICT and Critical Infrastructure: Proceedings of the 48th Annual Convention of Computer Society of India-Vol. I, pages 195–203. Springer International Publishing, 2014.
   https://doi.org/10.1007/978-3-319-03107-1_23
   **(WoS, Scopus indexed)**

8. **Soumen Atta** and Priya Ranjan Sinha Mahapatra. "***Genetic Algorithm Based Approach for Serving Maximum Number of Customers Using Limited Resources***." In Proceeding of First International Conference on Computational Intelligence: Modeling, Techniques and Applications (CIMTA-2013). Procedia Technology, Vol. 10, pages 492-497, Elsevier, 2013.
   https://doi.org/10.1016/j.protcy.2013.12.387
   **(WoS indexed)**

9. **Soumen Atta** and Anirban Mukhopadhyay. "***Power-aware Traffic Grooming in WDM Optical Mesh Networks for Bandwidth Wastage Minimization: A Genetic Algorithm -based Approach***." In Proceeding of National Conference on Computing and Communication Systems (NCCCS), ISBN: 978-1-4673-1952-2, pages 115-119, IEEE, Nov. 2012.
   https://doi.org/10.1109/NCCCS.2012.6412977
   **(WoS, Scopus indexed)**

**Research profile links:**

✓**Google Scholar:** https://scholar.google.co.in/citations?user=0JBAv78AAAAJ&hl=en

✓**WoS ResearcherID: AAI-5605-2020:** https://publons.com/researcher/3489254/soumen-atta/

✓**ORCID iD:** https://orcid.org/0000-0001-7492-5602

✓**Scopus:** https://www.scopus.com/authid/detail.uri?authorId=55605244600

✓**DBLP:** https://dblp.uni-trier.de/pers/hd/a/Atta:Soumen

✓**ResearchGate Profile:** https://www.researchgate.net/profile/Soumen-Atta

✓**YouTube Channel:** https://www.youtube.com/c/DrSoumenAtta

**List of successfully completed online courses/projects:**

**1. Delivery Problem** (An online non-credit course authorized by the *University of California San Diego* and *National Research University Higher School of Economics* and offered through *Coursera*, December, 2020)

**2. Crash Course on Python** (An online non-credit course authorized by *Google* and offered through *Coursera*, August, 2020)

**3. Programming for Everybody: Getting Started with Python** (An online non-credit course authorized by the *University of Michigan* and offered through *Coursera*, August, 2020)

**4. Introduction to Data Science in Python** (An online non-credit course authorized by the *University of Michigan* and offered through *Coursera*, April, 2020)

**5. Python Data Structures** (An online non-credit course authorized by *Coursera Project Network* and offered through *Coursera*, August, 2020)

**6. Project: Clustering Geolocation Data Intelligently in Python** (An online non-credit course authorized by *Rhyme* and offered through *Coursera*, April, 2020)

**7. Project: Linear Regression with NumPy and Python** (An online non-credit course authorized by *Rhyme* and offered through *Coursera*, April, 2020)

**8. Python Programming: A Concise Introduction** (An online non-credit course authorized by *Wesleyan*

*University* and offered through *Coursera*, April, 2020)

**9. Git & GitHub Crash Course: Crate a Repository From Scratch** (An online non-credit course offered through *Udemy*, October, 2019)

**10. Intro to Python for Data Science Course** (An online non-credit course offered through *DataCamp*, December, 2017)

**11. Introduction to R for Data Science (edX) Course** (An online non-credit course offered through *DataCamp*, November, 2017)

**12. Introduction to R Course** (An online non-credit course offered through *DataCamp*, November, 2017)

**13. Intro to Statistics with R: Introduction Course** (An online non-credit course offered through *DataCamp*, November, 2017)

## DEPARTMENTAL & TECHNICAL SKILLS:

- Data Structure & Algorithm
- Design & Analysis of Algorithm
- Operating System
- Numerical Methods
- Formal Language & Automata Theory
- Evolutionary Algorithms
- Programming languages: MATLAB, Python, C, CPLEX with OPL and Python API, Julia, R, MiniZinc, Google OR

## PERSONAL VITALISTICS:

| | |
|---|---|
| Name: | Dr. SOUMEN ATTA |
| Father's Name: | SUKANTA ATTA |
| Mother's Name: | RAMA ATTA |
| Spouse Name: | SAMPREETI ATTA |
| Date of Birth: | 23$^{RD}$ MAY, 1989 |
| Gender: | MALE |
| Category: | GENERAL |
| Blood Group: | O+ |
| Marital Status: | Married |
| Nationality: | INDIAN |
| Languages known: | ENGLISH, HINDI, BENGALI, SPANISH (Beginner level) |
| Aadhaar Number: | 6473-1462-0861 |
| PAN: | BBLPA8481J |
| Passport Number: | N4559113 |

## REFERENCES:

- **Prof. Priya Ranjan Sinha Mahapatra**, Professor and Former Head, Dept. of Computer Science and Engineering, University of Kalyani, Kalyani-741235, Nadia, West Bengal, INDIA.
  Email: priya@klyuniv.ac.in, Mob.: +91-9432146141, +91-6290713486

- **Prof. Anirban Mukhopadhyay**, Professor and Head, Dept. of Computer Science and Engineering, University of Kalyani, Kalyani-741235, Nadia, West Bengal, INDIA.
  Email: anirban@klyuniv.ac.in, Mob.: +91-9874043858

◆**Dr. María I. Restrepo**, Associate Professor, Department of Automation, Production and Computer Science, IMT Atlantique, Nantes, FRANCE.
Email: maria-isabel.restrepo-ruiz@imt-atlantique.fr.

◆**Dr. Goutam Sen**, Assistant Professor, Department of Industrial and Systems Engineering, IIT Kharagpur, Kharagpur, West Bengal 721302, INDIA.
Email: gsen@iem.iitkgp.ernet.in, Mobile: +91-9167982185

**DISCLAIMER:**

I hereby declare that all the statements furnished above are true to the best of my knowledge and belief and I bear the responsibility for the correctness of the same.

Place: Nantes, France
Date: July 06, 2022

Soumen Atta.
**(Dr. SOUMEN ATTA)**