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Professional Qualification:

➢ M. Tech (CS), Berhampur University, BERHAMPUR, Odisha, 2010
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Publications (Journals and Conferences):

➢ **LIST OF PUBLISHED PAPERS IN INTERNATIONAL CONFERENCES**

- **Rao, Bapuji**, Mitra, A, and Narayana, U: "An approach to Study Properties and Behaviour of Social Network Using Graph Mining Techniques", **DIGNATE 2014: ETEECT 2014**, **India**, **2014**.

- **Rao Bapuji** and Mitra A.: "An Approach of Mining Big Data from a Very Large Community Graph for Analyzing of Economic Standard of Communities Using Distributed Mining Techniques", **CCSN 2014**, International Association of Science, Technology and Management, **Puri**, **India**, **December 2014**. Pp. 213-218.

- **Rao Bapuji** and Mitra A: "An Approach to Merging of two Community Sub-Graphs to form a community Graph Using Graph Mining Techniques", **2014 IEEE - ICCIC**, **Coimbatore, India**, **Dec 18-20**, **2014**.

- **Rao Bapuji** and Mitra A: "A New Approach for Detection of Common Communities in a social network Using Graph Mining Techniques", International Conference on High-Performance Computing & Application **(ICHPCA-2014 IEEE)**, **Bhubaneswar**, **India**, **Dec. 2014**.

- **Bapuji Rao**, Anirban Mitra, and J Mondal: "Algorithm for Retrieval of Sub-Community Graph from a Compressed Community Graph Using Graph Mining Technique", Third International Conference on Recent Trends in Computing 2015 **(ICRTC-2015)**, **March 2015**, **SRM University**, **India**.

- **Bapuji Rao**, Sonali Mohapatra, Ujjal Saha, Anirban Mitra: "Applications of Social Network Using Quantum Computing", *International Conference on Inter-Disciplinary Research in Engineering and Technology*, **New Delhi, India, April 30, 2015**: 144-149. 2015© **Reserved by ASDF.international**.

- **Bapuji Rao**, Anirban Mitra, and P Padhi: "An Approach to Detect Common Community Sub-Graph between two Community Graphs Using Graph Mining Techniques", **ITC - 2015** and CNC - 2015, **March 2015**, **Chennai**, **India**.
- **Bapuji Rao** and Anirban Mitra: "An Algorithm for Partitioning Community Graph into Sub-Community Graphs Using Graph Mining Techniques", Proceedings of **3rd ICACNI 2015**, **23-25 June 2015, KIIT University, Bhubaneswar, India**.
- **Bapuji Rao**, Anirban Mitra, and D. P. Acharjya: "A New Approach of Compression of Large Community Graph Using Graph Mining Techniques", **3rd ERCICA2015**, Nitte Meenakshi Institute of Technology **(NMIT)**, Yelahanka, **July 31–Aug 1**, **2015**, **Bangalore, India**.
- **Bapuji Rao** and S .N. Mishra: "An approach to Mining Information from Telephone Graph Using Graph Mining Techniques", IEEE International Conference on Applied and Theoretical Computing and Communication Technology–2015 (**IEEE ICATCCT-2015**), **BIET**, **Davangere**, **Karnataka**, India, **October 29–31**, **2015**.
- **Bapuji Rao**, S. N. Mishra, and H. S. Maharana: "Algorithm for Representation of Call-Duration Graphs of Telephone Graph Using Multi-Layer Graph Techniques", Proceedings of **International Conference on Computational Intelligence 2015 (ICCI2015)**, **BIT**, **Mesra**, **Ranchi**, **India**, **December 10–11**, **2015**.
- **Bapuji Rao**, H. S. Maharana, and S. N. Mishra: "An Approach to Mining Strong and Weak Communicator Sub-Graphs from Email Graph Using Graph Mining Techniques", 2016 IEEE 1st International Conference on Computational Techniques in Information and Communication Technologies (**IEEE ICCTICT2016**), **Indraprastha University**, **New Delhi**, **March 11–13, 2016**.
- **Bapuji Rao** and S. N. Mishra: "An Algorithm to Mining Sub-Graphs from Authors Graph Using Graph Mining Techniques", IEEE International Conference on Computing Communication and Automation(**IEEE ICCCA2016**), **Galgotias University**, **Greater Noida, UP, India**, **April 29–30, 2016**.
- **Bapuji Rao** and Sabari Giri Murugan: "An Approach to Clustering of Text Documents with n-Texts Input Using Graph Mining Techniques", International Conference on Progressive Engineering, Technology and Science-2016 (**INC-PETS'16**), **Bangalore**, **India**, **October 2016**.
- **Bapuji Rao**, H. S. Maharana, and S. N. Mishra: "An Approach to Detect Sub-Community Graph in n-Community Graphs Using Graph Mining Techniques", **2016 IEEE ICCIC**, **Agni College of Technology**, **Chennai**, **Tamil Nadu**, **India**, **December 15–17, 2016**.
- **Bapuji Rao**, S. N. Mishra, and T. Kartik Kumar: "An Approach to Detect Patterns in a Social Attributed Graph Using Graph Mining Techniques", International Conference on Innovative Research in Engineering and Science (**IRES 2017**), Asian Institute Centre, **Thailand**, **16-17 June 2017**.
- **Bapuji Rao** and S. N. Mishra: "An Approach to Detect Patterns (Sub-Graphs) with Edge Weight in graph Using Graph Mining Techniques", 4th International Conference on Computational Intelligence in Data Mining (**ICCIDM-2017**), **VSSUT**, **Burla**, **Odisha**, **India**, **11-12 November 2017**.

- ➢ **PUBLISHED PAPER IN NATIONAL CONFERENCE**
  - ▪ **Bapuji Rao** and Saroja Nanda Mishra: **"An Approach to Text Documents Clustering with {n, n-1, ..., 1}-Word(s) Appearance Using Graph Mining Techniques"**, National Conference on Next Generation Computing and its Applications in Science and Technology (**NGCAST)–2016**, Sarang, Odisha, India, 27th – 28th September 2016.
- ➢ **LIST OF JOURNALS**
  - ▪ **Bapuji Rao** and Sarojananda Mishra: **"Detection of Sub-Community Graph in N-Community Graphs using Graph Mining"**, International Journal of Engineering and Advanced Technology (**IJEAT**), Volume-9, Issue-3, pp. 2014-2023, **February 2020**. DOI: 10.35940/ijeat.B4530.029320 (**Scopus Indexed**)
  - ▪ **Bapuji Rao** and Sarojananda Mishra: **"Sub-Community Graph Retrieval from a Compressed Community Graph Using Graph Mining"**, International Journal of Engineering and Advanced Technology (**IJEAT**), Volume-9, Issue-1, pp. 6176-6182, **October 2019**. DOI: 10.35940/ijeat.A1660.109119 (**Scopus Indexed**)
  - ▪ **Bapuji Rao** and Sarojananda Mishra: **"Compression of Community Graph Using Graph Mining Techniques"**, International Journal of Hybrid Intelligent Systems (**IJHIS**), Vol. 15, No. 1, pp. 55-65, **2019**. DOI: 10.3233/HIS-190260 (**ACM Computing Reviews, DBLP**)
  - ▪ **Bapuji Rao**: **"An Approach to Represent Social Graph as Multi-Layer Graph Using Graph Mining Techniques"**, International Journal of Education and Management Engineering (**IJEME**), Vol. 9, No. 1, pp. 20-36, **2019**. DOI: 10.5815/ijeme.2019.01.03 (**Google Scholar, Crossref Indexed**)
  - ▪ **Bapuji Rao**: **"An Approach to Opinion Mining in Community Graph using Graph Mining Techniques"**, International Journal of Synthetic Emotions (**IJSE**), 9(2), **2018**, **IGI Publishing, New York**. DOI: 10.4018/IJSE.2018070106 (**ACM Digital Library, DBLP**)
  - ▪ **Bapuji Rao**, Sarojananda Mishra and T. Kartik Kumar: **"An Approach to Detect Patterns in a Social Attributed Graph Using Graph Mining Techniques"**, Journal of Engineering and Applied Sciences (**JEAS**), 13: 4753-4760, **2018**. DOI: 10.3923/jeasci.2018.4753.4760 (**Scopus indexed**)
  - ▪ **Bapuji Rao** and S. N. Mishra: **"A New Approach to Community Graph Partition Using Graph Mining Techniques"**, International Journal of Rough Sets and Data Analysis (**IJRSDA**), pp. 75-94, Volume 4, Issue 1, **January-March2017**, IGI Publishing, New York. DOI: 10.4018/IJRSDA.2017010105 (**ACM Digital Library, DBLP**)
  - ▪ **Bapuji Rao** and B. K. Mishra: **"An Approach to Clustering of Text Documents Using Graph Mining Techniques"**, International Journal of Rough Sets and Data Analysis (**IJRSDA**), pp. 38-55, Volume 4, Issue 1, **January-March2017**, **IGI Publishing**, **New York**. DOI: 10.4018/IJRSDA.2017010105 (**ACM Digital Library, DBLP**)
  - ▪ **Bapuji Rao** and S. N. Mishra**: "An Approach to Finding Similarity between Two Community Graphs Using Graph Mining Techniques"**, International Journal of Advanced Computer Science and Applications (**IJACSA**), ISSN 2156 5570, pp. 466-475, Vol. 7, No. 5, **2016**. DOI: 10.14569/IJACSA.2016.070563, www.ijacsa.thesai.org (**ESCI Indexed**)

- **Bapuji Rao** and S. N. Mishra: **"Detection of Influential Communities and Members in a Community Graph of Villages Using Graph Mining Techniques"**, International Journal of Computer Science and Information Security **(IJCSIS)**, ISSN 1947 5500, pp. 85-94, Vol. 14, No. 5, **May 2016**. https://sites.google.com/site/ijcsis/ **(Google Scholar Indexed)**

- **Bapuji Rao** and Anirban Mitra: **"An Approach of Mining Big Data from a Very Large Community Graph for Analyzing of Economic Standard of Communities using Distributed Mining Techniques"**, IJCA Proceedings on International Conference on Computing, Communication and Sensor Network CCSN 2014(1): 21-26, June 2015, **(Google Scholar, EBSCO, CiteSeer Indexed)**

- **Bapuji Rao**, Anirban Mitra, and P Padhi: **"An Approach to Detect Common Community Sub-Graph between two Community Graphs Using Graph Mining Techniques"**, GRENZE DIGITAL LIBRARY, pp. 176-185, **2015**. DOI: 02.ITC.2015.6.9 **(DOJI, EBSCO indexed)**

- **Bapuji Rao** and Sarojananda Mishra: **"An Approach to Text Documents Clustering with {n, n-1, ..., 1}-Word(s) Appearance Using Graph Mining Techniques"**, International Journal of Science Engineering & Advanced Technology **(IJSEAT)**, pp. 756-762, Vol. 4, No 12, **December 2016**. http://www.ijseat.com/index.php/ijseat/article/view/768 **(Google Scholar)**

- **Bapuji Rao**, Anirban Mitra, and J Mondal: **"Algorithm for Retrieval of Sub-Community Graph from a Compressed Community Graph Using Graph Mining Technique"**, **Elsevier Procedia Computer Science**, 57(2015), pp. 678–685, **2015**. DOI: 10.1016/j.procs.2015.07.444 **(Scopus indexed)**

➢ **LIST OF BOOK SERIES**
- **Bapuji Rao** and S. N. Mishra: **"An Approach to Detect Patterns (Sub-Graphs) with Edge Weight in Graph Using Graph Mining Techniques"**, Advances in Intelligent Systems and Computing **(AISC)**, Vol. 711, pp. 807-817, **2018**, **Springer Nature**, Singapore. DOI: 10.1007/978-981-10-8055-5_71 **(Scopus indexed)**

- **Bapuji Rao**, S. N. Mishra, and H. S. Maharana: **"Algorithm for Representation of Call-Duration Graphs of Telephone Graph Using Multi-Layer Graph Techniques"**, Advances in Intelligent Systems and Computing **(AISC)**, Vol. 509, pp. 415-425, **2017**, **Springer Nature**, **Singapore**. DOI: 10.1007/978-981-10-2525-9 **(Scopus indexed)**

- **Bapuji Rao**, H. S. Maharana, and S. N. Mishra: **"An Approach to Detect Sub-Community Graph in n-Community Graphs Using Graph Mining Techniques"**, **IEEE Explore Digital Library**, 1-6, **May 2017**. DOI: 10.1109/ICCIC.2016.7919676 **(Scopus indexed)**

- **Bapuji Rao** and S .N. Mishra: **"An approach to Mining Information from Telephone Graph Using Graph Mining Techniques"**, **IEEE Explore Digital Library**, pp. 424-429, **April 2016**. DOI: 10.1109/ICATCCT.2015.7456921 **(Scopus indexed)**

- **Bapuji Rao** and Anirban Mitra: **"An Algorithm for Partitioning Community Graph into Sub-Community Graphs Using Graph Mining Techniques"**, Smart Innovation, Systems and Technologies, Vol. 44, pp. 3-15, **2015**, **Springer India**. DOI:10.1007/978-81-322-2529-4_1 **(Scopus indexed)**

- **Bapuji Rao**, Anirban Mitra, and D. P. Acharjya: **"A New Approach of Compression of Large Community Graph Using Graph Mining Techniques"**, ERCICA2015, Vol. 1, pp. 127–136, **2015**, **Springer India**. DOI: 10.1007/978-81-322-2550-8_13 **(Scopus indexed)**
- **Bapuji Rao**, Anirban Mitra, and P Padhi: "An Approach to Detect Common Community Sub-Graph between two Community Graphs Using Graph Mining Techniques", **ITC - 2015** and CNC - 2015, **March 2015**, **Chennai**, **India**.
- **Bapuji Rao** and Anirban Mitra: "An Approach to Merging of two Community Sub-Graphs to form a community Graph Using Graph Mining Techniques", **IEEE Explore Digital Library**, pp. 1-6, **Dec 18-20**, **2014**. DOI: 10.1109/ICCIC.2014.7238392 **(Scopus indexed)**
- **Rao Bapuji** and Mitra A: "A New Approach for Detection of Common Communities in a social network Using Graph Mining Techniques", **IEEE Explore Digital Library**, pp. 1-6, **Dec. 2014**. DOI: 10.1109/ICHPCA.2014.7045335 **(Scopus indexed)**

➢ **LIST OF BOOK CHAPTERS**
- **Bapuji Rao. (2021).** *Detection of Patterns in Attributed Graph Using Graph Mining*, A Chapter in "**Data Science and Data Analytics: Opportunities and Challenges**" edited by Dr. A. K. Tyagi, VIT, Chennai Campus, Publication by CRC Press, USA, Chapter-25, pp. 410-432, https://www.routledge.com/Data-Science-and-Data-Analytics-Opportunities-and-Challenges/Tyagi/p/book/9780367628826
- **Bapuji Rao** and Sarojananda Mishra. **(2020).** *Sub-community Graph Retrieval from a Compressed Community Graph Using Graph Mining: New Perspective,* Chapter-2 in *Emerging Trends in Engineering Research and Technology*, Vol. 6, pp. 11-26, DOI: 10.9734/bpi/etert/v6, Http://Www.Bookpi.Org/Bookstore/Product-Category/Engineering-Research-And-Technology/
- **Bapuji Rao. (2020).** *N-Clustering of Text Documents Using Graph Mining Techniques,* for the upcoming book, *Encyclopedia of Information Science and Technology*, Fifth Edition (3 Volumes) (pp. 828-846). Hershey, PA: IGI Global. DOI:10.4018/978-1-7998-3479-3.ch057.
- **Bapuji Rao**, Sasmita Mishra, and Sarojananda Mishra. **(2018).** *An Approach to Mining Information From Telephone Graph Using Graph Mining Techniques*, Chapter-3 in N. Meghanathan(Ed.), *Graph-Theoretic Approaches for Analyzing Large-Scale Social Networks* (pp. 34-52). Hershey, PA: IGI Global, USA. DOI:10.4018/978-1-5225-2814-2.ch003
- **Bapuji Rao**, Sasmita Mishra**,** and S. N. Mishra. **(2018)**. *Applications of Social Graphs–Author, Email, Telephone Using Graph Mining Techniques*, Chapter-13 in G.Sreedhar (Ed.), *Improving E-Commerce Web Applications through Business Intelligence Techniques* (pp. 297-331). Hershey, PA: IGI Global, USA. DOI:10.4018/978-1-5225-3646-8.ch013
- **Bapuji Rao**, Sasmita Mishra, and S. N. Mishra. **(2017)**. *Some Other Applications in Community Graph under the Preview of Social Graph Using Graph Mining Techniques*, Chapter-14 in **Web Data Mining and the Development of Knowledge-Based Decision Support Systems** (edited) by G. Sreedhar (Rashtriya Sanskrit Vidyapeeth, Deemed University, India)**, IGI Global, USA, pp. 223-283,**

http://www.igi-global.com/book/web-data-mining-development-knowledge/166924#table-of-contents, DOI: 10.4018/978-1-5225-1877-8.ch014

- **Bapuji Rao** and Anirban Mitra. (**2016**). *Graph Mining and Its Applications in Studying Community Based Graph under the Preview of Social Network*, Section-I, Chapter-5 in **Product Innovation through Knowledge Management and Social Media Strategies** (edited) by Alok Kumar Goel (Human Resource Development Centre, India) and Puja Singhal (Amity University, India), **IGI Global, USA**. http://www.igi-global.com/book/product-innovation-through-knowledge-management/137053, DOI: 10.4018/976-1-4666-9607-5

➢ **LIST OF BOOKS**
- **Bapuji Rao. (2019)**. **"Representation of Call-Duration and Social Graph as Multi-Layer Graphs – A Graph Mining Techniques"**, LAP LAMBERT Academic Publishing, ISBN-13: 978-613-9-44266-9, Published on: 14-01-2019, https://www.lap-publishing.com/
https://www.morebooks.de/store/gb/book/representation-of-call-duration-and-social-graph-as-multi-layer-graphs/isbn/978-613-9-44266-9

Awards and Achievements:

➢ Received **"BEST RESEARCHER AWARD"** in the International Scientist Awards on Engineering, Science and Medicine held on **11 & 12-Feb-2021, Pondicherry, India**, Organized by **VDGOOD Professional Association**.

➢ Received *Certificate of Merit* in Three-Day National Faculty Development Programme on **"BIGDATA AND HADOOP ANALYTICS"** from **11th to 13th December 2017** conducted by NWTP-2017 in association with ED Cell Roorkee organized by Electronics and Communication Engineering Department, **IGIT**, **Sarang**, **Odisha**, **India**.

➢ **Best Paper Award: Bapuji Rao** and A. Mitra, "An approach to merging of two community sub-graphs to form a community graph using graph mining techniques", in **IEEE–ICCIC Track 4**, IEEE Podhigai, **December 2014, Coimbatore, INDIA**.

➢ Appreciation letter from Bhagirath Kaushik, Vice President (S & M), **S. CHAND & COMPANYLTD.**, **INDIA, 2013** for pointing out logical and subjective errors in "Programming in C (BPUT Syllabus) by Dr. S. S. Khandare".

➢ Represented in the **East Zone Inter-University Badminton Tournament** held at Berhampur University, Berhampur, Odisha, India in the year **1989-90**.

Workshops/Seminars/FDPs:

➢ Attended One-Week FDP(ONLINE) on **"Advanced MATLAB Programming with Applications in Emerging Technologies"** organized by Department of ECE, SRM IST, Delhi-NCR Campus, Ghaziabad, UP from **12th – 17th June, 2023**.

➢ Attended Five-Days FDP(ONLINE) on **"Effective Teaching Learning using Social Media"** conducted by NITTR, Chandigarh, India from **5/6/2023** to **9/6/2023**.

➢ Attended National Level **One-Week** FDP(ONLINE) on **"Learn and Build an AI Application on Real Datasets"** conducted by Mr. Saurabh Bhardwaj, Founder & CEO TechieNest Pvt. Ltd., organized by the Department of Computer Science & Engineering,

of Dr. Akhilesh Das Gupta Institute of Technology & Management (ADGITM), New Delhi-110053 from **22nd – 27th November 2021**.

➢ Attended National Level **Five-Days** FDP (ONLINE) on **"Multidimensional Skillset of Current Generation of Teaching Professionals"** organized by the Department of Information Technology, Prathyusha Engineering College, Thiruvallur, Tamilnadu-602025 from **14th – 18th June 2021**.

➢ Attended National Level **Two-Weeks** FDP(ONLINE) on **"Role of Artificial Intelligence in Data Science and Internet of Things Applications (RAIDIA-2020)"** organized by the Department of Electronics and Telecommunication Engineering, IGIT (Auto), Sarang, Odisha from **9th – 22nd September 2020**.

➢ Attended **One-Week** Hands-On FDP (ONLINE) on **"Artificial Intelligence Using Python"** organized by the Department of Information Technology, Oriental College of Technology, Bhopal-86, India in association with Brainovision Solutions India Pvt. Ltd. &National Youth Council of India held from **14th – 19th September 2020**.

➢ Attended National level **One-Week** e-FDP & Expert's Class on **"NEW NARRATIVE OF NAAC"** conducted by R. R Institute of Advanced Studies, Raja Reddy Layout, Chikkabanavara, Bangalore-90, India held from **1st– 7th August 2020**.

➢ Attended National Level **Five-Days** FDP (ONLINE) on **"Statistical Applications Using SPSS Software"** organized by G. L. Education Foundation, Bengaluru from **27th – 31st July 2020**.

➢ Attended National Level **One-Week** FDP(ONLINE) on **"MATLAB and Its Applications in Engineering using Machine Learning & Deep Learning"** organized by the Department of ECE, GPREC (Auto), Kurnool, Andhra Pradesh from **13th – 17th July 2020**.

➢ Attended **Three-Days** FDP(ONLINE) on **"Cyber Security & Blockchain Technology"** organized by the Department of Computer Science and Engineering, Lakshmeshwar from **3–5 July 2020**.

➢ Attended National Level **Two-Weeks** FDP(ONLINE) on **"Recent Advancement in Signal Processing, Machine Learning, and next-generation Wireless Access Techniques (RASWAN-2020)"** organized by the Department of Electronics and Telecommunication Engineering, IGIT (Auto), Sarang, Odisha from **11th – 24th June 2020**.

➢ Attended **Two Weeks** National Webinar Series on **"Current trends in IT 2020"** organized by JSPM's Rajarshi Shahu College of Engineering, Department of MCA, Thathawade, Pune **from 10th – 14th June 2020**.

➢ Completed **SWAYAM-NPTEL Online Courses "The Joy of Computing using Python"** - a **12-Week** Program started on **27-01-2020**. (https://swayam.gov.in)

Work Experience:
➢ Twenty plus years experience which includes teaching, academic guidance, and research.