



#### Prof. Prahlada Rao B. B.

Director R & D & Professor- Computer Science & Engineering East Point College of Engineering & Technology

**Email Id:** prahladaraobb@eastpoint.ac.in

**Vidwan ID:** https://vidwan.inflibnet.ac.in/profile/267815 https://www.linkedin.com/in/prahladaraobb/

- Dr. Prahlada Rao did his Ph.D (1995) in Computer Science & Automation from Indian Institute of Science, Bangalore, M.Tech (1981) in Control Systems Engineering from Indian Institute of Technology, Kharagpur and B.Tech (1979) in Electrical & Electronics Engineering from Jawaharlal Nehru Tech. University-Kakinada.
- He Served in Industry IT R&D for 28+ years, and Academics in Computer Science (8+ Years). Served as Dean, Computer Science at RGMCET-Nandyala Andhra Pradesh, Adjunct Professor at IIITDM-Kurnool. Dean, Computer Science at MITS-Madanapalle and Distinguished Professor at GITAM-Bangalore, and Professor IIIT Bangalore and on deputation served at MIIT-Myanmar, Mandalay
- Worked in Industry IT R&D, with significant contributions to IT, Computer Science: EDA Algorithms and Avionics at MNC's: IBM Global Services Ltd., STmicoelectronics, Mentor Graphics India Pvt. Ltd., and Government of India's Research Institutes: C-DAC Bangalore, HAL Hyderabad, ADA Bangalore.
- His Areas of Specialization: Artificial Intelligence, ML, Scientific Cloud Computing, High Performance Computing, Hybrid Computing, Computer Architectures. Grid Computing. e-Infrastructures for Scientific Computing, EDA Tools Development, EDA Algorithms and Avionics. Evolutionary Computing, Genetic Algorithms and Simulated Annealing, EDA Algorithms. Optimization,
- He Published 5 Patents and received 1-US Patent Granted and 3 Granted IPO Patents. He Authored more than 70+ Papers that are published in reputed journals in Elsevier, Springer, IEEE, WOS & Scopus.
- He has been awarded a fund of Rs. 800L for Cloud Computing Research & Development Projects from MEITY, Govt of India and 75 Crores Grid Computing R&D Projects from MEITY, Govt of India and DST, Govt of India, Rs. 10L to Organize an International Workshop on Cloud Computing in 2011-12. Rs. 4 Laks FP7-Project-287820 EU-INCOOP Project Fostering Co-



Operation in: EU-India Computing Systems FORTH-Greece, KYOS- Switzerland, Open Group-UK, IISc, C-DAC, ITSMA-Bangalore, (1st Oct 2011 to 30 Nov 2013)

- He was involved as Member-Board of Governers and Member-Bboard of Studies RGMCET Nandyal, 2020-24.NITEE Meenakshi (CSA, IT Dept), Bangalore, 2012-14. Vigyan Engg. College, Guntur (BOS for Ph.D, M.Tech, B.Tech) 2010-11. VIT, Vellore BOS (CSA, IT Department) 2009-10. Served as Member of Technical Experts Council IBM Academy of Technology 2003-04
- Task Force Member: BigData Analytics, Super Computing, Cloud & Grid Computing, P-CMM at IBM (2003-04), FPGA, and ISO at STMicroelictronics, 1998-2000.
- **Served as Grievance Officer** of C-DAC (2014-15) Chairman, Material Management Committee: Procurements & Purchases (2010-15), Chairman, Medical Fascilities Committee: Procurements & Purchases (2014-15) C-DAC Bangalore.
- **Served as Extended Faculty** Member, **BITS-Pilani:** for MS-VLSI Program of BITS-Pilani, Bangalore 2002-05.
- Served as Advisory/Progam Committee Member for International & National Conferences on: Big Data, Cloud Computing, Grid Computing, Evolutionary Computation, Parallel & Distributed Computing and VLSI Design.

## Patents Granted:

- B.B.Prahlada Rao and Srinivasa Patil, "Performance Groups-Based Fast Simulated Annealing that improves Speed and Quality of VLSI Placement", US 6725437B1, Granted Patent, Dated: April. 20, 2004. USA. https://patents.google.com/patent/US6725437
- MohanRam N, Prahlada Rao B. B, Mangala N, Sridharan R, Asvija B, Shamjith K.V, "A method and system for Debugging or run time profiling of heterogeneous computation al grids and/or geographically distributed systems", IPO Filed# 02610/CHE/2007, Dated of Filing: 09/11/2007, Granted Patent # 275095, dated: 23/08/2016, IPO
- Shamjit KV, Mangala N, Deepika K.V., Prachi Pande, Prahlada Rao B.B., Sarat Chandra Babu N., Method And System For Dynamic Adaptation Of Program Execution On Differenct Target Hardware", Application Nu # 4973/CHE/2014, Dated: 01/10/2014, Granted Patent # 415299, dated: 2021, IPO
- Payal Saluja, Bhaskara Prahlada Rao B.,Sarat Chandra Babu "A CLOUD STORAGE SERVICE FOR CLOUD COMPUTING", Indian Paten Application Nu. # 1392/CHE/2013, Filed Dated: 28/03/2013, IPO. Published in 2014.

### **Book Chapters**



- Ramesh Naidu Laveti, Prahladarao B B, Vineeth Simon Arackle, Arunachalam B., Seasonal Ensemble Forecasting Application On Dependable Sumegha Scientific Cloud Infrastructure, International Symposium on Grids and Clouds 2016 [ISGC 2016], Academia Sinica, Taipei, Taiwan, 13-18 March 2016, in Proceedings of Science, Ubiquitous e-infrastructures and Applications.
- Vineeth S Arackal, Arunachalam B, Kalasagar B, Sumit Kumar, Mangala N, Sarat Chandra Babu, Prahlada Rao B.B., Sukeshini, SuMegha Cloud Kit: Create Your Own Private Scientific Cloud, International Symposium on Grids and Clouds 2016 [ISGC 2016], Academia Sinica, Taipei, Taiwan, 13-18 March 2016, DOI:10.22323/1.270.0024, Corpus ID: 55863444.
- 3. Prahlada Rao.. et all., A Framework and Roadmap for Cloud Computing Innovation in India, White Paper 2.0, Cloud Computing Innovation Council of India [CCICI], IEEE Standards Association, IEEE-SA Industry Connections, vol., no., pp.1-206, 31 Dec. 2014, DOI: 10.1109/IEEESTD.2014.7039186.
- 4. Shamjith K. V., Asvija B., Sridharan R., Prahlada Rao BB., Mohanram N., Realizing Inter-operability among Grids: A Case Study with GARUDA Grid and the EGEE Grid, International Symposium on Grid Computing 2008, Taipei, Taiwan, 7-11 April 2008. Production Grids in Asia, 2010, pp 175-184, Date: 30 Sep 2009, Production Grids in Asia, DOI: 10.1007/978-1-4419-0046-3 14
- 5. Shamjith K. V., Asvija B., Sridharan R., Prahlada Rao BB., Mohanram N., Realizing Inter-operability among Grids: A Case Study with GARUDA Grid and the EGEE Grid, International Symposium on Grid Computing 2008, Taipei, Taiwan, 7-11 April 2008. Production Grids in Asia, 2010, pp 175-184, Date: 30 Sep 2009, Production Grids in Asia, DOI: 10.1007/978-1-4419-0046-3 14
- 6. B.B. Prahlada Rao, **Evolutionary Approaches to VLSI Channel Routing, Ph.D Dissertation**, CSA Department, Indian Institute of Science, Bangalore, India, Dec.1994, https://iisc.ac.in/doi/abs/10.13140/RG.2.2.23551.00163
- B.B. Prahlada Rao, L. M. Patnaik, and R.C. Hansdah, An Evolutionary Programming Based Channel Router, In 4<sup>th</sup> Annual Conf. on Evolutionary Programming [EP95] Proceedings, MIT Press, Cambridge, MA, USA, DOI: 10.7551/mitpress/2887.001.0001, 1-3 March, 1995. EISBN: 9780262290920.
- 8. A Bradford **Book Chapter, MIT Press**. Cambridge, Massachusetts. ISBN 0-262-13317-2, pp.521-544, 1995. **ISBN:**9780262290920
- 9. Prahlada Rao B. B., L. Patnaik, R. Hansdah, An Extended Evolutionary Programming Algorithm for VLSI Channel Routing, 1995, San Diego, CA, USA, pp. 521-544. 1-3 March 1995, Book Chapter, MIT Press, Corpus ID: 6894613, DOI: 10.7551/mitpress/2887.003.0047, 1995 URL: http://www.arnetminer.org/viewpub.do?pid=182678



#### **Journals**

- B. Kalasagar, B. Arunachalam, Vineeth Simon Arackal, B.B. Prahlada Rao, Grid Portal with Compiler Service, Advanced Reservation QoS and Job Management Using Mobile Services", in Proceeding of International Conf. on Intelligent Computing and Data Science, SASTRA University, Thanjavur 12-13th Sept. 2014, International Journal of Advanced Intelligence Paradigms, 2015 Vol.7 No.3/4, Special Issue on Intelligent Computing and Data Science, DOI: 10.1504/IJAIP.2015.073706. Editor: Dr. A. Umamakeswari
- Mangala N, Prahlada Rao BB, Subrata C., Sridharan R, N Sarat Chandra Babu, GARUDA: Pan Indian Distributed e-Infrastructure for Compute-Data Intensive Collaborative Science, Springer: The Journal Of Computing, CSI Transactions on ICT, June 2013 Vol-1, Issue 2, pp 193-204. CSIT [June 2013] 1[2]:193–204 DOI 10.1007/s40012-013-0016-2
- S. Janakiraman, Mohit Ved, Ramesh Naidu Laveti, and B.B. Prahlada Rao, 'Seasonal Forecasting of Indian Summer Monsoon by NCEP GFS atmosphere model' National Conf. on TROPMET-2011, India Meteorological Society [IMS] Hyderabad. Dec14-16, 2011, Special Issue: Grid Infrastructures Supercomputing Conference -2011
- Prahlada Rao B.B, Mangala N, Sarat Chandra Babu N, Subrata Chattopadyay, Sridharan R., Grid Technology Services of a Nationwide Service-Oriented e-Infrastructure for Data Intensive, Multi-Disciplinary Applications- GARUDA, Journal of Grid Computing,
- 5. Prahlada Rao B.B, Ramakrishnan S, RajaGopalan M.R, Dr Subrata C, Mangala N, Sridharan R.,
- e-infrastructures in IT: A Case study on Indian National Grid Computing Initiative-GARUDA', International Supercomputing Conference [ISC'09], June 23-26, 2009, Hamburg, Germany. The papers are published in Special ed. of Springer's Journal on "Computer Science- Research and Development", Vol 23, Issue 3-4, pp 283-290, June 2009. [Editor: Sabine Glesner, ISSN: 1865-2042, Journal no. 450, Springer], https://doi.org/10.1007/s00450-009-0079-3
- Asvija B, Shamjith K.V, Henry Sukumar, SridharanR, Mohanram N, and Prahlada Rao BB., Characteristics of a Novel Grid Resource Broker cum Meta-scheduler, International Symposium on Grid Computing [ISGC 2007], at Academia Sinica, Taipei, Taiwan, March 26-29, 2007
- 8. Prabu D, Vanamala V, Anshu Garg, Sanjeeb Kumar Deka ,Sridharan R, Prahlada Rao BB, Mohanram N. "Development of 64-bit Message Passing Interface for Large Scale Cluster Computing" Proceedings of the WSEAS TRANSACTIONS ON COMPUTER RESEARCH, Vol. 2, pp 147-155, ISSN: 1991-8755, Feb 2007. http://www.worldses.org/journals/research/research-february2007.doc



- Prahlada Rao B.B, Ramakrishnan S, RajaGopalan M.R, Dr Subrata C, Mangala N, Sridharan R., 'e-infrastructures in IT: A Case study on Indian National Grid Computing Initiative-GARUDA', International Supercomputing Conference [ISC'09], June 23-26, 2009, Hamburg, Germany. The papers are published in Special ed. of Springer's Journal on "Computer Science- Research and Development", Vol 23, Issue 3-4, pp 283-290, June 2009. [Editor: Sabine Glesner, ISSN: 1865-2042, Journal no. 450, Springer], https://doi.org/10.1007/s00450-009-0079-3
- D C. Saha, B.B.Prahlada Rao, and G. P. Rao., 'Structure and parameter identification in linear continuous lumped systems- The Poisson moment functional approach', International Journal of Controls, 1982, Vol. 36, [3], pp. 477-491 DOI: 10.1080/00207178208932909

#### **Conferences**

- Pavan Kumar A, Janaki Chintalapati, Mangala N, and Prahlada Rao B.B., "BDPGx - A Big Data Platform for Graph-based Pharmacogenomics Data", National Conference on Parallel Computing Technologies [ParCompTech 2017], NIAS Auditorium, IISc Campus, Bangalore, India, 23rd -24th February 2017. DOI: 10.1109/PARCOMPTECH.2017.8068334, ISBN:978-1-5090-4145-9
- Arjun Dhanpal, Arunachalam B, Dwarakanath V, Prahlada Rao B. B, Haribabu P. Sampada S., Integrated Cloud-WSN to Analyze Weather Data and notify SaaS User Alerts During Weather Disasters, IEEE International Advance Computing Conference [IACC 2015], Bangalore DOI 10.1109/IADCC.2015.7154835
- 3. Arunachalam B, Arjun D.S., Prahlada Rao B. B, Haribabu Pasupuleti. Dwarakanath V., Sensing Service Framework for Climate Alert System using WSN-Cloud Infrastructure, IEEE 9th International Conf. on Sensing Technology [ICST], 2015, Auckland, New Zealand DOI.. 10.1109/ICSensT.2015.7438482 WOS:000380410400129
- 4. Shamjith K, N Mangala, Prahlada Rao B.B, Sharat Chandra Babu. Debugger for Multi-level Hybrid Parallel Programs on Heterogeneous Accelerator Cluster Architectures Survey and Challenges, September 2015, Conference: 2015 IEEE High Performance Extreme Computing Conference [HPEC '15] At: Waltham, MA USA Volume: 15 17 September 2015
- Manavalan, Subrata Chattopadhyay, Mangala, Prahlada Rao, Sarat Chandra Babu, Akhil Kulkarni, 'Experiments on Information Retrieval Mechanisms for Distributed Biodiversity Databases Environment', IEEE International Conference on Contemporary Computing and Informatics [IC3I 2014]. SJCE, Mysore, India, 27-29<sup>th</sup> Nov. 2014. IEEE, 2014
- Pavan Kumar A, Janaki Chintalapati, Neeharika N, Payal Saluja, Mangala N, and Prahlada Rao B.B, "Information Gateway for Integrated Pharmacogenomics Data— IGIPD", 2014 IEEE Intl.Conf.



- on Big Data [Big Data], 2014, pp.1-9, Washington D.C. 27<sup>th</sup> Oct.2014. DOI: 10.1109/BigData.2014.7004385,
- Shivay Veer Sharma, Anil Bhargava, Payal Saluja, Prahlada Rao B B, "Accessing E-Infrastructures using CDAC Scientific Cloud [CSC] Services", in proceedings of 2nd IEEE International Conference on Cloud Computing in Emerging Markets [IEEE CCEM 2013], 17-19<sup>th</sup> October 2013, Bangalore.
- Vineeth Simon Arackal, Aman Arora2, Deepanshu
   Saxena, Arunachalam B, Prahlada Rao B B, SciInterface: A Web-Based Job Submission Mechanism for Scientific Cloud Computing, in proceedings of 2nd IEEE International Conference on Cloud Computing in Emerging Markets [IEEE CCEM 2013], 17-19<sup>th</sup> October 2013, Bangalore.
- Deepansu S., Aman A., Ramesh Naidu L., Arunachalam B., Vineeth Simon A., Prahlada Rao B.B, Problem Solving Environment for Seasonal Forecast Model on CDAC Scientific Cloud, Second International Conference on Advances in Cloud Computing [ACC 2013], Conducted CSI Bangalore, 19-20th Sept 2013.
- 10. Aman Arora, Pavan Kumar, Vineeth Simon Arackal, Janaki Chintalapati, Arunachalam B., Prahlada Rao B B, Cloud NGS Tool: An Online Pipeline for Next Generation Sequencing Data; Second International Conference on Advances in Cloud Computing [ACC 2013], Conducted CSI Bangalore, 19-20<sup>th</sup> Sept 2013.
- Prahlada Rao BB, Payal Saluja, Ankit Mittal Neetu Sharma, Shivay Veer Sharma., Cloud Computing for Internet of Things & Sensing Based Applications, 6th International Conference on Sensing Technology [ICST 2012], Kolkata, India. 18-21<sup>st</sup> Dec 2012. [pp. 374-380]. IEEE DOI: 10.1109/ICSensT.2012.6461705
- 12. Payal Saluja, Prahlada Rao, Ankit Mittal, Rameez Ahmad, "CDAC Scientific Cloud: On Demand Provisioning of Resources for Scientific Applications", Proceedings of PDPTA'12: 18th Int. Conf. on Parallel and Distributed Processing Techniques and Applications, Las Vegas, USA, 16-19 July 2012.

## **Achievements / Awards / Recognitions**

- SKOCH Smart Governance Award 2015 Order of Merit-SuMegha Scientific Cloud: A Scientific Cloud Stack Product developed during the working at C-DAC, Bangalore, Sept 2015, SKOCH Group, New Delhi
- SKOCH Smart Governance Award 2015 Order of Merit for CloudVault-A Cloud Storage Solution Product developed during the working at C-DAC, Bangalore, Sept 2015, SKOCH Group, New Delhi
- Best Project Award to GARUDA Grid, in International Conference on eScience-2008, Bangalore
- Best Parallel Application Award: 'Parallel Genetic Algorithms Based VLSI Channel Routing', Parallel Comp Research Implemented during the Ph.D Study at I.I.Sc. Bangalore, 1990-95



website contents	
	Best Employee of FPGA Team- 2020, STMicroelectronics Noida
	Professional Societies Membership
	<ul> <li>Life Member- Computing Society of India (CSI), India</li> </ul>
	<ul> <li>Life Member- Advanced Computing and Communication Society (ACCS) India</li> </ul>
	<ul> <li>Member-Technical Experts Council IBM Academy of Technology, 2003-04</li> </ul>
	<ul> <li>EC Member- Cloud Innovation Council of India, IEEE Standards Association 2013-15</li> </ul>