

Resume of Polepalli Krishna Reddy

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(As on November 2006)

Research Interests:

Transaction management, distributed computing systems, information systems, performance evaluation, internet data management, data mining, web mining, ICTs for rural development.

Courses Taught:

Database systems, Distributed database systems, Advances in Database Systems, Computer architecture, Information systems, Structured Systems analysis and design, Object oriented systems analysis and design, Operating systems, Web mining, Performance evaluation.

Education:

Ph.D., Computer Science (1991-94)

Title : Synchronization based on data flow graphs for distributed and replicated database

University: School of Computer and Systems Sciences, Jawaharlal Nehru University, India.

M.Tech., Computer Science (1989-91),

Title: Concurrency control and recovery in replicated distributed databases,

University: School of Computer and Systems Sciences, Jawaharlal Nehru University, India.

B.E., Electronics (1984-88), SSGM College of Engineering,

Amravati University, India.

Passport Information:

Passport No: Z 1253799; Name on the Passport: Polepalli Krishna Reddy

Date of birth: 02-JAN-1965; Date of Issue: 28-04-2003; Date of Expiry: 27-04-2013

Place of Issue: Hyderabad, India

Fellowships:

UGC fellowship (1989 -93): Awarded by University Grants Commission, Government of India for both M.Tech and Ph.D.

JSPS fellowship (1997-99): Postdoctoral fellowship awarded by Japan Society for the Promotion of Science (JSPS), Japan.

Experience:

April 2002 - till date, Associate Professor, International Institute of Information Technology, Hyderabad, India.

Sept. 1997 - March 2002, Postdoctoral researcher/Research Associate, Institute of Industrial Science, University of Tokyo, Japan.

August 1996 - July 1997, Assistant Professor, Department of Computer Science, Philadelphia University, Jordan.

May 1994- July 1996, Visiting Associate, Delhi Institute of Technology, India.

Administration:

April 2004- June 2006, Chief-Warden, IIIT, Hyderabad.

April 2002 - Jan 2007, Chairman, Library, IIIT, Hyderabad

Consultancy

1. Working as an Expert in “ICT in Agriculture” (Advisory) for the “Design of Mission Mode Project in Agriculture” to Wipro Consultancy Services. Duration: 1 year (2006-07). Key activities: providing agriculture domain specific inputs to the team and giving overall guidance to the team.

Funded Research Projects

1. Project Title: eSagu--- Productization, Optimization, and Developing a Business Model
Duration: One year (November 2006- October 2007)
Amount= Rs. 351.05 lakhs
Funding Agency: Media Lab Asia
2. Project Title: Interim Project on eSagu
Duration: Three months (August 2006 – October2006); Amount: 17.40 lakhs
Funding Agency: Media Lab Asia
(File No: MLA/IIIT-HYD/e-SAGU/03, Dt. 28/09/2006)
3. Project Title: Building a Cost-effective and Personalized eSagu
Duration: One year (August 2005 - July 2006); Amount: 145.84 lakhs
Funding Agency: Media Lab Asia
(File No. MLA/IIIT-HYD/05/e-SAGU/ Dt 06.09.2005)
Role: Chief-investigator
4. Project Title: Web-based Agricultural Information Dissemination System
Duration: One year (April 2004- July 2005); Amount: 62.11 lakhs
Funding Agency: Ministry of Communication and Information Technology, New Delhi.
(File No.DIT/CC&BT/TDP-179 Dt. 13.2.04).
Role: Chief Investigator

Awards/Recognitions

1. e-Sagu project has won the best CSI-Nihilent e-Governance Project Award (overall winner) 2005-06.
2. Research paper entitled “ An Approach to Build a Cyber-Community Hierarchy” has been recognized as on of the important paper in “Web Graph Sociology” area. For a reference, visit <http://farrall.org/webgraph/bibliography/index.html> (August 2006)

3. The eSagu (An IT-based Personalized Agro-Advisory System) system has been listed as one of the top three e-Governance projects (the other two are BHOOMI and SAMPARK) of India in the video film on “Next e Governance Plan”, November 2005.

4. The eSagu (An IT-based Personalized Agro-Advisory System) system has been recognized as one of the world wide latest novel internet application by a not-for-profit Think Tank for Taiwanese Ministry of Economic Affairs in Taipei (Behalf of Institute of Information Industry, Taiwan)

Publications:

Journal papers

B.V.Ratnam, P.Krishna Reddy, and G.S.Reddy, eSagu: An IT based personalized agricultural extension system prototype--analysis of 51 Farmers' case studies, International Journal of Education and Development using ICT (IJEDICT), Vol.2, No.1(March 2006).

P.Krishna Reddy, e-BusGuide: An IT-based Approach to Improve the Profitability of Bus Transportation Systems in India, IETE Technical Review, Vol. 22, No. 5, September-October 2005, pp. 351-355.

P.Krishna Reddy and R.Ankaiah, A Framework of Information Technology Based Agriculture Information Dissemination System to Improve Crop Productivity, Current Science, vol. 88, Num. 12, pp. 1905-1913, June 2005.

P. Krishna Reddy, Masaru Kitsuregawa: Speculative Locking Protocols to Improve Performance for Distributed Database System. IEEE Transactions on Knowledge and Data Engineering. 16(2): 154-169 (2004)

P.Krishna Reddy and Masaru Kitsuregawa, Reducing the blocking in two-phase commit with backup sites, Information Processing Letters, Volume 86, Issue 1, April 2003, Pages 39-47.

P.Krishna Reddy and Subhash Bhalla, Asynchronous operations in distributed concurrency control, IEEE Transactions on Knowledge and Data Engineering, Vol. 15, no. 3, May/June 2003, pp. 1-13.

P.Krishna Reddy and Subhash Bhalla, A Nonblocking Transaction Data Flow Graph Based Protocol for Replicated Databases, IEEE Transactions on Knowledge and Data Engineering, vol.7, no. 5, pp.829-834, October 1995.

P.Krishna Reddy and Subhash Bhalla, "Deadlock Prevention in a Distributed Database Systems", ACM SIGMOD RECORD, ACM press, Vol.22, No.3, pp.40-46, September 1993.

P.Krishna Reddy and Subhash Bhalla, "A Nonblocking Transaction Data Flow Graph Based Approach for Replicated Data", ACM Operating Systems Review, ACM press, Vol.27, No.3, pp.46-54, July 1993.

Magazine/News Paper Articles

P.Krishna Reddy, An Interview on the topic “IT into Indian Agriculture”, Chartered Financial Analyst (Magazine), ICFAI University Press, pp.22-23, Vol. XII, Issue-07, July 2006.

P.Krishna Reddy, Futuristic Farming: e-Sagu, Future Byte, Express Computer Exclusive, Indian Express Group, pp. 38-39, January 2006.

P.Krishna Reddy, Message from Chief Investigator (eSagu project), A two page message written for the book entitled “Cotton Pests and IPM: A Pictorial Guide”, prepared by eSagu team and printed at IIIT, Hyderabad, 2005.

R.Haragovinda Rao and P.Krishna Reddy, Agricultural Revolution, e-Sagu (in Telugu), Cover story of SUNDAY VAARTHA magazine, 1 May 2005, pp. 14-18.

Books

Chief-editor of the book entitled “Cotton Pests and IPM: A Pictorial Guide” prepared by eSagu team and printed at IIIT, Hyderabad, 2005.

Project and Technical Reports Prepared

P.Krishna Reddy, A.Sudarshan Reddy, B.Venkateswar Rao, G. Shyamasundar Reddy, eSagu: Web-based Agricultural Expert Advice Dissemination System (2004-05), Final Completion Report of Research Project, Submitted to Ministry of Communications and Information Technology, 2005.

P.Krishna Reddy, G.Shyamasundar Reddy, and B.V Ratnam (editors), Proceedings of National Workshop on IT-based Personalized Agricultural Extension System (IT-PAES2005), 6 May 2005, Hyderabad, India.

Refereed Conferences/Workshops

P.Krishna Reddy and GV Ramaraju, eSagu An IT-based Personalized Agricultural Extension System- A Prototype Experience, Fifth International Conference of the Asian Federation for Information Technology in Agriculture (AFITA2006), November 9-11, 2006, Bangalore, India.

SVS Gopaldaswamy, S.Sivashankar Reddy, G.Shyamasudar Reddy, P.Krishna Reddy, Impact of eSagu (It-based Personalized Agricultural Extension System) in Reducing the cost of Cotton Crop –A Case Study, Fifth International Conference of the Asian Federation for Information Technology in Agriculture (AFITA2006), November 9-11, 2006, Bangalore, India.

G.Shyamasudar Reddy and P.Krishna Reddy, Efficient Implementation of Agri-insurance Schemes by Piggybacking eSagu System, Third National Workshop on “ICT and Agriculture: From Potential to Prosperity in a Global Perspective”, IAITA and DA-IICT, Ahmedabad, India, 15-16, June 2006.

P.Krishna Reddy, eSagu: An IT-based Personalized Agricultural Extension System, Poster Abstract, First International Conference on Biotechnology for Sustainable Agriculture & Agro Industry (AgriBIOTECH2006), page no. 58, 9-11, March 2006, Hyderabad, India.

D.Ravishankar, Prdeep Beerla, and P.Krishna Reddy, Leader-page resources in the World Wide Web, Proceedongs of 12th International Conference on Management of Data (COMAD 2005b), December 20-22, Hyderabad, India, 2005.

P.Krishna Reddy, A.Sudarshan Reddy, B.Venkateswar Rao, M.Kumaraswamy, The Application of ICT in Agriculture--The Case of "eSagu" model of Web-based Agricultural Expert Advice Dissemination System, Second International Conference on Technology, Knowledge and Society at Hyderabad, India, 12-15 December, 2005.

P. Krishna Reddy, G.Syamasundar Reddy, A.Sudarshan Reddy, and B.Venkateshwar Rao, eSagu: An IT-Based Personalized Agricultural Extension System--A Prototype Experience, Seminar on Science, Technology and Development (in the honor of Prof. Amulya K.N. Reddy on the occasion of his 75th birthday) Indian Institute of Science, Bangalore, on 28 October 2005.

P. Arun Kumar, K. Praveen Kumar, T. Someswara Rao, P. Krishna Reddy: An Improved Approach to Extract Document Summaries Based on Popularity. DNIS 2005: 310-318

Kumar Gaurav, Swati Agrawal, P. Krishna Reddy, Towards an IT based Bus Information System to Improve Bus Occupancy in Hyderabad, 7th International Conference on Information Technology (CIT2004), December 2004, Hyderabad, India.

P.Krishna Reddy, Pankaj Kumar Madhukar, Rakesh Kumar, A Recommender System for Indian Movies, 7th International Conference on Information Technology (CIT2004), December 2004, Hyderabad, India.

Bhanu Chetlapalli, Raghu Kishore, Rammurthy Garimella, Krishna Reddy, Low-Cost Distributed Anonymous File Server for the Internet, 7th International Conference on Information Technology (CIT2004), December 2004, Hyderabad, India.

P.Krishna Reddy, G.Shyamsunder Reddy, J.Tirupathi, B.Rammohan Rao, D.Guruva Reddy, M.Anitha, and M.Kumaraswamy, Towards building IT-based Cost-effective and Personalized Agricultural Extension Systems, National Seminar on Information and Communication Technologies for Agricultural and Rural Development, September 09-10, 2004, National Academy of Agricultural Research Management, Rajendranagar, Hyderabad, India.

P.Krishna Reddy, G.Shyamsunder Reddy, J.Tirupathi, B.Rammohan Rao, D.Guruva Reddy, M.Anitha, and M.Kumaraswamy, An IT based Personalized Agricultural Extension System to Improve Crop Productivity: Preliminary Experiences with 1000 Cotton Farmers Prototype, National Seminar on Information and Communication Technologies for Agricultural and Rural Development, September 09-10, 2004, National Academy of Agricultural Research Management, Rajendranagar, Hyderabad, India.

P.Krishna Reddy, A Framework of Information Technology Based Agriculture Information Dissemination System to Improve Crop Productivity. In the proceedings of Andhra Pradesh

Economic Association, XXII Annual Conference, 14-15, February 2004, DNR College, Bhimavaram, Andhra Pradesh (Theme: Role of Information Technology in A.P).

G.Rama Murthy, Gaurav Vijayvargiya, M.Thiyagarajan, P.Krishna Reddy, Optimal binary filters: neural networks, First Indian International Conference on Artificial Intelligence (IICAI03), December 18-20, Hyderabad, India, Springer-Verlag.

Rajat Gupta, BVL Narayana, P.Krishna Reddy, GV Ranga Rao, CLL Gowda, YVR Reddy, and C.Ramamurthy, Understanding Helicoverpa armigera Pest Population Dynamics related to chickpea crop using neural networks, Third International Conference on Data Mining (ICDM2003), Florida, USA, November, 19-22,2003, IEEE Computer Society Press.

P.Krishna Reddy, A novel framework for information technology based agricultural information dissemination system to improve crop productivity, proceedings of 27th convention of Indian Agricultural Universities Association, December 9-11, 2002, published by Acharya N.G.Ranga Agricultural University, Hyderabad, India.

P.Krishna Reddy, Masaru Kitsuregawa, P.Sreekanth and S.Sreenivasa Rao, A graph based approach to extract a neighborhood customer community for collaborative filtering. 2nd International Workshop on Databases in Networked Information Systems (DNIS 2002), The University of Aizu, Japan, December 16-18, 2002, to appear in Lecture Notes in Computer Science.

P.Krishna Reddy and Masaru Kitsuregawa, An approach to build a cyber-community hierarchy, Workshop on Web Analytics (WWA2002), April 13, 2002, held in Conjunction with Second SIAM International Conference on Data Mining (SDM 2002), Arlington, VA, USA.

P.Krishna Reddy and Masaru Kitsuregawa, An approach to relate the web communities through bipartite graphs, The Second International Conference on Web Information Systems Engineering (WISE2001), 3 - 6 December 2001, IEEE Computer Society.

P.Krishna Reddy and Masaru Kitsuregawa, Blocking reduction in two-phase commit protocol with multiple backup sites, International Workshop on Databases in Networked Information Systems (DNIS2000), The University of Aizu, JAPAN, December 4-6, 2000, Lecture Notes in Computer Science, vol. 1966, pp. 200-215, Springer-Verlag.

P.Krishna Reddy and Masaru Kitsuregawa, Speculation based nested locking protocol to increase the concurrency of nested transactions, International Database Engineering and Applications Symposium (IDEAS2000), September 18-20, 2000, Yokohoma, Japan, IEEE Computer Society Press.

P.Krishna Reddy and Masaru Kitsuregawa, Scalable protocols for the Internet to reduce service time and server load, 1999 International Computer Science Conference (Theme: Internet Applications), December 13-15, 1999, Hong Kong, China, Lecture Notes in Computer Science, vol.1749, pp.346-353, Springer-Verlag.

P.Krishna Reddy and Masaru Kitsuregawa, Speculative lock management to increase concurrency in mobile environments, The First International Conference on Mobile Data

Access (MDA'9), December 15-17, 1999, Hong Kong, China, Lecture Notes in Computer Science, vol, 1748, pp. 82-96, Springer-Verlag.

P.Krishna Reddy and Masaru Kitsuregawa, Speculation to increase the concurrency of nested transactions, The International Conference on Information Technology (CIT'99) 1999, December 20-22, Bhubaneswar, India, pp.53-60, TATA-McGRAW HILL.

P.Krishna Reddy and Masaru Kitsuregawa, Reducing blocking in two-phase commit protocol employing backup sites, In the Third IFCIS Conference on Cooperative Information Systems (CoopIS'98), pp. 406-415, August 20-22, 1998, New York, USA, published by IEEE Computer Society Press.

P.Krishna Reddy and Masaru Kitsuregawa, Improving Performance in Distributed Database Systems Using Speculative Transaction Processing, in the Proceedings of The Second European and Distributed Systems Conference (Euro-PDS'98), Editors: O.Bukhres and H.El-Rewini, IASTED press, pp.275-285, July 1-3, 1998, Vienna, Austria.

P.Krishna Reddy, "An Improved Transaction Processing Approach for Distributed Database Systems", in proceedings of A Conference on Recent Developments in Computer Science Applications, pp.46-51, Philadelphia University, AMMAN, July 8-9, 1997.

P.Krishna Reddy and Subhash Bhalla, "Non-blocking Concurrency Control in Distributed Database Systems" in the proceedings of Aizu International Symposium on Parallel Algorithm/ Architecture Synthesis (pAs'95), Aizu-Wakamatsu, Japan, March 15-17, 1995, pp.192-198, published by IEEE Computer Society Press.

P.Krishna Reddy and Subhash Bhalla, "A Rejection Free Concurrency Control Approach for Replicated Data", in proceedings of Second International Conference on Information Systems and Management of Data (CISMOD'93), Editor: N.L.Sarda, October 1993, New Delhi, India, Published by TATA McGRAW-HILL.

P.Krishna Reddy and Subhash Bhalla, "An Algorithm for Deadlock Prevention in a Distributed Database System", in proceedings of International Conference on Management on Data (COMAD'92), pp.203-212, December 1992, Bangalore, India, published by TATA McGRAW-HILL.

P.Krishna Reddy and Subhash Bhalla, "Increasing Reliability in Distributed Systems", in proceedings of Indian Computing Congress (ICC'91), pp.117-127, December 1991, Hyderabad, India, published by TATA McGRAW-HILL.

Professional Membership

Member, IEEE Computer Society, Membership No. 40210995.

Member, ACM, Membership No. 5172093.

Member, Computer Society of India, Membership No.23888.

Professional and Academic Services

Research talks

Delivered a lead invited talk at 27th Convention of Indian Agricultural Universities Association, December 9-11, 2002 (Topic: Harnessing developments in information Technology for agriculture and rural development).

Computer Science dept., New Jersey Institute of Technology, New Jersey (USA), April 16, 2002 (topic: Speculative locking).

IBM TJ Watson research center, New York, April 15, 2002 (topic: speculative locking).

Dept. of Computer Science and Engg., Indian Institute of Technology, Bombay, June 7, 2001 (topic: Speculative locking).

Delivered a tutorial talk at International Conference on Information Systems and Management of Data-1994 (CISMOD-94), at Madras on the topic "Data Replication in Distributed Database Systems", October 27, 1994, Madras, India.

Editorial Services

Member, Editorial Board, International Journal of Information and Communication Technology (IJICT), Inder Science Publishers.

Program committee member/ refereed papers for the following:

International Conference on Information Systems and Management of Data-1994, (CISMOD-94) October 27-28, 1994, Madras, India.

International Conference on Information Systems and Management of Data-1995, (CISMOD-95) November 15-17, 1995, Bombay, India.

3rd IFCIS International Conference on Cooperative Information Systems, August 20-22, 1998, New York.

5th International Conference on Foundations of Data Organization (FODO'98), Kobe, Japan, November 1998.

International workshop on Internet Data Management (IDM'99), 2nd Sept. 1999, Florence, Italy.

The First International Conference on Electronic Commerce and Web technologies (EC-Web 2000), UK, September 4-6, 2000.

International Workshop on Databases in Networked Information Systems (DNIS 2000), University of Aizu, JAPAN, December 4-6, 2000.

Referee, IEEE Transactions on Knowledge and Data Engineering, 2000.

Referee, IEICE Transactions, Japan, 2001.

The 2nd International Conference on Electronic Commerce and Web Technologies (EC-Web 2001), September 4-6, 2001, Munich, Germany.

International Workshop on Data Semantics in Web Information Systems (DASWIS-2001), November 29-30, 2001, Yokohama, Japan.

International Conference on Networks, Parallel and Distributed Processing and Applications (NPDPA 2002), October 1-4, 2002, Tsukuba Science City, Japan.

2nd international Workshop on Databases in Networked Information Systems (DNIS 2002), University of Aizu, JAPAN, December 16-18, 2002.

International Conference on Data Engineering (ICDE'2003), Bangalore, March 5-8, 2003, India.

IADIS International Conference e-Society 2003.

References:

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Prof. Masaru Kitsuregawa, Professor, Institute of Industrial Science, The University of Tokyo, E-Block, Room no. Ee-310, 4-6-1, Komaba, Meguro-Ku, Tokyo 153-8505, Japan, Fax: +81-3-5452-6457; Tel.: +81-3-5452-6098 ext.56254, E-mail: kitsure@tkl.iis.u-tokyo.ac.jp

Dr. Mukesh Mohania, Research Staff Member, I.B.M. India Research Lab, Block No 1, I.I.T. Hauz Khas, New Delhi 110016, India. Phone: +91-11-6861100, Fax: +91-11-6861555, Email: mkmukesh@in.ibm.com

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