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&

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1. Full Name Divakar Singh Yadav

2. Nationality Indian

3. Address for Communication

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4. Educational Qualifications:

1. Ph.D. (Computer Science) (2008), School of Electronics and Computer Science
University of Southampton, U.K.
2. M.Tech. (Master of Technology) Computer Science & Engineering (1997)
Indian Institute of Technology, Kharagpur (India).
3. B.Tech. (Bachelor of Technology) Computer Engineering (1989)
G B Pant University of Agriculture and Technology, Pantnagar (India)

5. Administrative Assignments:

- ❑ Director, Rajkiya Engineering College, Banda. (21 Jan 2015 Onwards)
- ❑ Director, Bundelkhand Institute of Engineering & Technology, Jhansi (02 April 2016 Onwards) (additional charge)
- ❑ Pro. Vice Chancellor, Uttar Pradesh Technical University, Lucknow (March 2013 – November 2014)
- ❑ Chairperson, Department of Computer Science, Faculty of Mathematics and Computer Science, South Asian University, New Delhi (July 2012- March 2013)
- ❑ Asstt. Dean of Student Welfare, South Asian University, New Delhi (Sept 2011- Mar 2013)
- ❑ Head, Department of Computer Science and Engineering, IET Lucknow (Oct.2010 – July.2011), Head, Training and Placement Cell, Institute of Engineering and Technology, Lucknow (Aug.2008- Jul.2011), Head, Department of Computer Science and Engineering, IET Lucknow (Aug.2003– Oct.2004).

7. Awards / Reviewing / Membership/ Project:

7.1. Awards

- ❑ Commonwealth Scholarship Award (2004-2007), offered by Commonwealth Scholarship Commission in the United Kingdom, London.
- ❑ Young Scientist Award (2003) of Government of Uttar Pradesh for year 2002-2003 under “Science Awards–2002-2003” announced by Council of Science and Technology, Department of Science & Technology, Government of Uttar Pradesh, Lucknow.
- ❑ Distinguished Author Award (2008) of The Federation of Educational Publishers in India, India Education Conference-2008, 1 Dec. 2008, India Habitat Centre, New Delhi.
- ❑ Certificate of Achievement, ACM International Collegiate Programming Contest, Asia Programming Contest, IIT Kanpur, 1999
- ❑ College Merit Certificate (1989) for UG studies at G. B. Pant University of Agriculture and Technology, Pantnagar, UP India.

7.2. Reviewer / Membership (Past & Present)

- ❑ Member, Executive Council, Rajiv Gandhi Prodyogiki University (RGPV), Bhopal.
- ❑ Member, Board of Governors, National Institute of Technology, Allahabad.
- ❑ Member, Executive Council, Uttar Pradesh Technical University, Lucknow.
- ❑ Member, Academic Council, Uttar Pradesh Technical University, Lucknow
- ❑ Member, Academic Council, South Asian University, (A university jointly established by SAARC Nations), Chanakapuri, New Delhi.
- ❑ Member, Board of Studies, Computer Science, South Asian University, New Delhi.
- ❑ Member, University Admission Committee, South Asian University, New Delhi.
- ❑ Member, Standing Advisory Committee, South Asian University, New Delhi.
- ❑ Member, Board of Studies, Computer Science, Gautam Buddha Technical University, (Formerly UP Technical University), Lucknow
- ❑ Organizing Secretary, International workshop on Data and Text Analytics (08 December 2014- 13 December 2014) jointly by South Asian University, New Delhi and U P Technical University, Lucknow.
- ❑ Member, Editorial Board, Journal of Computer Technology and Application.

- ❑ Member, Technical Program Committee, Second International Conference on Data Analytics (Data Analytics 2013), September, 2013, Porto, Portugal
- ❑ Member, Technical Program Committee, The First International Conference on Data Analytics (Data Analytics 2012), September 23-28, 2012 - Barcelona, Spain
- ❑ Member, Program Committee, 2nd Intl. Workshop on Data Mining with Graphs and Matrices (WDGM'11), August 29 - September 2, 2012, Toulouse, France
- ❑ Member, Program Committee, 3rd International Conference on Computer and Communication Technology (ICCCT 2012),IEEE, Nov 23-25, 2012, NIT Allahabad.
- ❑ Reviewer, Formal Aspects of Computing(J), Springer-Verlag, London
- ❑ Member, Technical Program Committee, International Multi-topic Conference, (IMTIC'12) Mehran University, 28-30 march 2012, (Proc. In CCIS Springer Verlag)
- ❑ Workshop Co-Chair, Workshop on Data Mining with Graphs and Matrices (WDGM'10), July 30, 2010, Tiruchirappalli, India. (Proc. in Vol 6411 of Lecture Notes in Computer Science, Springer Verlag)
- ❑ Reviewer, 2012 IEEE Conference On Control, Systems & Industrial Informatics (ICCSII 2012), Hyatt Hotel, Bandung, Sept 23-26, 2012, Indonesia.
- ❑ Reviewer, IEEE Symposium on Industrial Electronics and Application, (ISIEA 2012), Bandung, Sept 23-26, 2012, Indonesia
- ❑ Member, National Advisory Committee, 3rd IEEE International Advance Computing Conference, Feb 22-23, 2013, India
- ❑ Member, International Advisory Committee, Confluence 2012, 27-28 Sept 2012, Amity University, Noida
- ❑ Member, Program Committee,2rd International Conference on Computer and Communication Technology (ICCCT 2011), IEEE, Sept15-17, 2011, NIT Allahabad.
- ❑ Reviewer, IEEE Symposium on Wireless Technology & Application, (ISWTA 2012), Bandung, Sept 23-26, 2012, Indonesia
- ❑ Member, Program Committee, National Conf. on Research and Development Trends in ICT, Feb 12-13,2010, University of Lucknow. U.P.
- ❑ Member, Program Committee, First International Multi-topic Conference, (IMTIC 2008), April 11-12, 2008 Jointly organized By Mehran University and Aalborg University Esbjerg, Denmark.(Proceedings in CCIS, Springer Verlag)
- ❑ Reviewer, Methods, Models and Tools for Fault Tolerance, Volume 5454 of Lecture Notes in computer Science, Springer-Verlag, Berlin-Heidelberg, 2009.

- ❑ Reviewer, Workshop on Methods, Models and Tools for Fault Tolerance (MeMoT 2007) , July 3, 2007, Oxford, UK.
- ❑ Reviewer, Workshop on Rigorous Engineering of Fault-Tolerant Systems (REFT 2005), July 19, 2005, Newcastle upon Tyne, UK.
- ❑ Reviewer, Rigorous Development of Complex Fault-Tolerant Systems, Volume 4157 of Lecture Notes in computer Science, Springer-Verlag, Berlin-Heidelberg 2006.
- ❑ Reviewer, Integrated Formal Methods, Volume 4591 of Lecture Notes in computer Science, Springer-Verlag, Berlin-Heidelberg 2007.
- ❑ Reviewer, Mc Millan, Pearson Education and Tata-McGraw Hill.
- ❑ Member, International Association of Engineers, Hong Kong, IAENG, Membership No. 102791.

7.3. Research Supervision:

- ❑ Ph.D : 04 (Awarded), 02(In Progress)
- ❑ M.Tech/M.S. : 15 (Awarded), 02 (Under Supervision)

7.4. Ph.D. Supervised :

1. Sanjay Kumar (2014), **Replication control protocols for distributed databases**, Sam Higginbottom Institute of Agriculture, Science and Technology, Allahabad U.P.
2. Raghuraj Singh Suryavansi (2015), **Verification of Protocols for replicated databases : understanding issues in Group Communication, Data Management and Fault Tolerance**, Uttar Pradesh Technical University, Lucknow.
3. Girish Chandra (2015), **Formal Development of Trustworthy Electronic Payment Systems**, Uttar Pradesh Technical University, Lucknow.
4. Arun Kumar Singh (2015), **Formal Specifications and Verification of Routing Protocols in MANET**, Uttar Pradesh Technical University, Lucknow.

8. Publications :

8.1 Text Books

1. D. S. Yadav, "**Foundations of Information Technology**", 506 pages, 3rd Edition, New Age International Publishers (Formerly Wiley Eastern), New Delhi , 2001. ISBN : 81-224-1490-7.
2. D. S. Yadav, R Khanna, "**Computer Concepts and Programming in C**", 517 pages, New Age International Publishers (Formerly Wiley Eastern), New Delhi, 2008. ISBN : 978-81-224-2571-0.

3. D. S. Yadav, Girish Chandra, N Chelmaiah, "**Information Technology and Numerical Methods**" 384 Pages, New Age International Publishers (Formerly Wiley Eastern), New Delhi, 2008. ISBN : 978-81-224-1423-3.
4. D. S. Yadav, A. K. Singh, "**Microcontrollers : Features and Application**", 282 pages, New Age International Publishers (Formerly Wiley Eastern), New Delhi, 2006, ISBN : 978-81-224-1811-8.

8.2. Thesis / Dissertations

5. D. S. Yadav, "**Rigorous Design of Distributed Transactions**", PhD Thesis, Dependable Systems and Software Engineering research group, School of Electronics and Computer Science, University of Southampton, UK, 2008.
Thesis Supervisor : Prof. Michael Butler, University of Southampton, UK.
Thesis Examiner: Prof. Alexander Romanovsky, University of Newcastle, UK.
6. D. S. Yadav, "**Performance Analysis of Long-lived Cooperative Transactions in Active Database Management Systems**", M.Tech Thesis, Department of Computer Science and Engineering, Indian Institute of Technology (IIT), Kharagpur ,1997.
Thesis Supervisor: Prof. A K Majumdar, IIT, Kharagpur.
Co-Supervisor: Dr. P. Kangsabanik, IIT Kharagpur.

8.3. Journals Articles :

7. Sanjay Kumar, Gurmit Singh and Divakar Yadav, "**Analysis of a Database Replication Algorithm under load sharing in network**", Journal of Engineering Science and Technology Vol. 11, No. 2, pp 193-211 (2016).
8. Girish Chandra and Divakar Yadav, "**Formal Development of Basic Timestamp Concurrency Control Mechanism using Event-B**", International Journal of Computer Application, Vol 123, No 8 , pp 7-11, August 2015. Foundation of Computer Science (FCS), NY, USA.
9. Singh, A.K, Divakar Yadav and V K Singh, "**Formal development of path discovery in AODV Routing Protocol using Event-B**", International Journal of Computer Applications (IJCA), volume 124(5):24-30, 2015
10. Girish Chandra, Raghuraj Suryavanshi and Divakar Yadav, "**Formal verification of Distributed Checkpointing using Event-B**", International Journal of Computer Science and Information Technology (IJCSIT), Vol. 7(5), pp 59-73, October 2015.
11. Singh, A.K. and Divakar Yadav, "**Formal specifications and verification of total order broadcast through destination agreement using Event-B**",

International Journal of Computer Science and Information Technology, Vol. 7
No 5, pp 85-95, October 2015.

12. Singh, A.K, Divakar Yadav and V K Singh., “**Modeling of DSDV Routing Protocol for Ad Hoc networks Using Event-B**”, International Journal of Computer Engineering & Technology (IJCET).Volume:5, Issue: 2, pp. 108-116, 2014 .
13. Sanjay Kumar, Gurmit Singh and Divakar Yadav,”**Analysis of Database Replication Algorithm in Local and Global Networks**”, *International Journal of Computer Applications* 84(6):48-54, December 2013, New York, USA.
14. Sanjay Kumar, Gurmit Singh and Divakar Yadav ,” **Throughput and Delay Analysis of Database Replication Algorithms**” International Journal of Modern Education and Computer Science (IJMECS), Vol.5, No. 12, pp 47-53, 2013.
15. Sanjay Kumar, Gurmit Singh and Divakar Yadav ,” **Mathematical Framework for A Novel Database Replication Algorithm,**” International Journal of Modern Education and Computer Science (IJMECS), Vol.5, No. 9, pp 1-10, 2013
16. N Phulmare, P Chakravorty and Divakar Yadav,” **Understanding and Estimation of Emotional Expression using acoustic analysis of natural speech**”, International Journal on Natural Language Computing (IJNLC) Vol. 2, No.4, 2013
17. Girish Chandra and Divakar Yadav,“ **Verification of Money Atomicity in Digital cash based Payment Systems**”, Information System Security, Lecture Notes in Computer Science(LNCS), Vol 7671, pp 249-264, Springer-Verlag, Berlin-Heidelberg, 2012.
18. Raghuraj Suryavanshi and Divakar Yadav, “**Rigorous design of Lazy Replication System Using Event-B**”, Contemporary Computing, Communications in Computer and Information Sciences(CCIS), Vol 306, pp 407-418, Springer-Verlag, Berlin-Heidelberg, 2012
19. Raghuraj Suryavanshi and Divakar Yadav, “**Rigorous Design of Partition-Aware Total Order Broadcast System using Event-B**”, International Journal of Computer Applications 26(8):35-39, New York, 2011. ISBN: 978-93-80864-34-9.
20. Divakar Yadav, Michael Butler, “**Formal Development of a Total Order Broadcast for Distributed Transactions using Event-B**”, Method, Models and Tool for Fault-Tolerance, Lecture Notes in Computer Science, Vol. 5454, pp 152-176, Springer-Verlag, Berlin-Heidelberg, 2009. ISSN : 0302-9743

21. Girish Chandra, Divakar Yadav, “ **Analyzing Data Flow in Trustworthy Electronic Payment Systems using Event-B**”, Data Engineering and Management, Lecture Notes in Computer Science(LNCS), Vol 6411, pp 325-332, Springer-Verlag, Berlin-Heidelberg, 2010. ISSN 0302-9743
22. Raghuraj Singh, Divakar Yadav, “**Formal Development Of Byzantine Immune Total Order Broadcast System Using Event-B**”, Data Engineering and Management, Lecture Notes in Computer Science, Vol 6411, pp 317-324, Springer-Verlag , Berlin-Heidelberg, 2010. ISSN 0302-9743
23. Divakar Yadav, Michael Butler, “**Verification of Liveness Properties in Distributed Systems**”, Communications in Computer and Information sciences, Vol 40, pp 625-636, Springer-Verlag, Berlin-Heidelberg, 2009. ISSN : 1865-0929
24. Michael Butler, Divakar Yadav, “**An incremental development of the Mondex System in Event-B**”, Formal Aspects of Computing, Springer-Verlag, London, Vol 20, No 1, pp 61-77, 2008. ISSN : 0934-5043
25. P Kangsabanik, D S Yadav, R Mall, A K Majumdar, “**Performance Analysis of Long-Lived Cooperative Transactions in active DBMS**”, Data and Knowledge Engineering, Elsevier B.V Amsterdam, Volume 62, Issue 3, pp 547-577, 2007. ISSN: 0169-023X
26. Divakar Yadav, Michael Butler, “**Rigorous Design of Fault-Tolerant Transactions for Replicated Database System using Event B**”, Rigorous Development of Complex Fault Tolerant Systems, volume 4157 of Lecture Notes in Computer Science, pp 343-363, Springer-Verlag, Berlin Heidelberg, 2006. ISSN : 0302-9743
27. J Pandey, S Joshi, D S Yadav, “ **ANN Based Crop Yield Forecasting Model Using Remote Sensing and Surface Parameters**”, International journal of Emerging Technologies and Applications in Engineering, Technology and Sciences, Vol 2(2) , pp 724-727, India, 2009. ISSN: 0974-3588
28. D S Yadav, V S Yadav, R C Sarswat ,” **Maintaining Legal Requirement of Digital Signature through public key cryptographic system**”, IETE Journal of Education , New Delhi, Vol 44, No 3, pp. 131-142 , July –Sep 2003 , ISSN : 0970-1664.

8.4. Technical Reports

29. Divakar Yadav, Michael Butler, “**Formal Specifications and Verifications of Message Ordering Properties in a Broadcast System using Event B**”,

Technical Report, School of Electronics and Computer Science, University of Southampton, 2007.

30. Divakar Yadav, Michael Butler, "**Development of Distributed Transaction in Event-B**", Intermediate Report on Methodology, EU IST project RODIN Deliverable D19 (Public Document), Editor Cliff Jones, pp 58-65, August 2006., Newcastle upon Tyne, UK.
31. Divakar Yadav, Michael Butler, "**Rigorous Design of Fault-tolerant Transactions for Replicated Databases**", Final Report on Methodology, EU IST project RODIN Deliverable (Public Document), Editors C B Jones, M J Butler, E Troubitsyana, A Rezazadeh pp 31-33, 30 October 2007, Newcastle upon Tyne, UK.
32. Divakar Yadav, "**Formal Development of Distributed Transactions for Replicated Databases using Event B**", Dagstuhl Seminar Number 06121, 19.3.2006 - 24.3.2006, 'Atomicity : Unifying concept in computer science', Abstract Collections, Editors CB Jones, D Lomet, A Romanovsky, G Weikum, Schloss Dagstuhl - Leibniz-Zentrum für Informatik GmbH, Dagstuhl, Germany.

8.5. Refereed International Conference Proceedings

33. P Bahadur and Divakar Yadav, "**Computer Forensics: Digitized Science**", SAI Intelligent Systems Conference (IntelliSys 2015), 10-11 Nov 2015, London, U.K.
34. Subodh Kumar, Girish Chandra, Divakar Yadav, "**Formal Verification of Security Protocol using B Method**", Proc. 5th IEEE Intl. Conference on Computer and Communication Technology (ICCCT-2014), 26-28 Sept 2014, Allahabad, IEEE Digital Library, pp 161-167, ISBN : 978-1-4799-6757-5, 2014.
35. Raghuraj Suryavanshi and Divakar Yadav, "**Modeling of Distributed Mutual Exclusion System Using Event-B**" in Third International Conference on Computer Science and information (CCSIT-2013) , Jan Zizka Editor, Computer Science & Information Technology (CS & IT), pages 477-491, 2013
36. Raghuraj Suryavanshi and Divakar Yadav, "**Modeling of Multiversion Concurrency Control System Using Event-B**", FEDCSIS 2012, Sept 9-12, 2012, Wroclaw, Poland. IEEE Digital Library, ISBN 978-83-60810-48-4, 2012.
37. Nilima Phulmare, Divakar Yadav, "**Rigorous Analysis of Byzantine Causal Order Using Event-B**", ICWET 2010, ACM New York, ISBN : 978-1-60558-812-4, 2010.

38. Divakar Yadav and Michael Butler, “ **Formal Development of Fault Tolerant Transactions for a replicated Database using Ordered Broadcasts**”, In Proc. of Workshop on Methods, Models and Tools for Fault Tolerance , MeMoT 2007, pp 33-42, 3 July 2007, Oxford, UK
39. Divakar Yadav, “**Rigorous Design of Distributed Transactions for Replicated Database System using Event B**”, (Poster) , Post Graduate Research Showcase, School of Electronics and Computer Science, University of Southampton, December 2006, UK
40. Divakar Yadav, Michael Butler, “**Application of Event-B to Global causal Ordering for Fault-Tolerant transactions**”, In Proc. of Workshop on Rigorous Engineering of Fault Tolerant Systems, REFT 2005, pp 93-103, 19 July 2005, Newcastle upon Tyne, UK
41. D S Yadav, Rajeev Agrawal , A K Majumdar , “**Modeling long duration transaction with time constraints in Active Database**” , International Conference on Information Technology : Coding and Computing, ITCC 2004, Volume-1, IEEE Computer Society , PP 497-501, April 5-7, 2004, Las Vegas, Nevada, USA. ISBN: 0-765-2108-8.
42. D.S. Yadav, Rajeev Agrawal, R. C. Sarswat, “**Analysis of Cooperation Semantics for Transaction Processing with Full and Partial Aborts in Active Database**”, Proceedings 4th IEEE International Pacific Rim Conference on Multimedia , Information , Communication and Signal Processing , ICICS/PCM-2003 ,Singapore, 18-20 December 2003, ISBN:0-7803-8186-6
43. D.S. Yadav, R.C. Sarswat, G. Chandra, R. Agrawal, “**An approach to reduce resource contention while scheduling time constrained long running activity in Active Database System**” , 5th International Workshop on Computer & Information Technologies , CSIT 2003, 16-18 Sept 2003 ,Ufa , Proceeding , Vol 1 , pp 162-166 , Russia. ISBN : 5-86911-420-9
44. S. Agrawal, B.N. Mishra, D.S. Yadav, G. Chandra, R. Goel, S. Misra, A.K. Khare, “**Recent Trends in Drug Design: A Bioinformatics Approach**” , 5th International Workshop on computer & Information Technologies ,CSIT 2003, 16-18 Sept 2003, Proceedings , Vol 1 , pp 49-53, Ufa , Russia. ISBN : 5-86911-420-9
45. D S Yadav, A K Majumdar , R C Saraswat, D S Chauhan " **Towards a Model of Concurrency to achieve Temporal Consistency in Long Duration Transaction Processing in Real Time Active Database System** ", Proc. 3rd International Conference on Information , Communication and Signal Processing (ICICS 2001) , 15-18 Oct 2001 , Singapore , ISBN : 981-04-5149-0

46. D S Yadav , P Kangasabanik , A K Majumdar , " **Scheduling Long Duration Transaction in Real Time Active DBMS**" , ICICS'99 , 2nd Intl. Conf. On Information, Communication & Sig. Processing , 7-10 Dec 1999, Singapore.

8.6. National Conferences Proceedings

47. Raghuraj Singh, Divakar Yadav, "**Formal Development of Lazy Replication System Using Event-B**", In Proc Nat. Conf. Research and Development Trends in ICT, RDICT-10,12-13 Feb 2010.

48. D S Yadav, S S Soam ,S K Bajpai , "**An Elegant way to Achieve Parallelism in Real Time Transaction Databases**" Proc. National Conference on Data Communication (NCDC-2000) , 7-8 April 2000 , Chandigarh , India.

49. D S Yadav , "**Digital Signatures**", PWD Annual Review 2000, Government of UP, Lucknow, India

50. D S Yadav, S K Shukla, "**Technical and Legal Aspects of Digital Signatures**" , Proc. National Conference on advancement in Information Technology and Management", AIM -2002, Dehradun , India, Feb 2002.

51. D S Yadav, S S Soam, S K Bajpai , "**On Concurrency Control Mechanism to achieve parallism in Real Time Transaction Databases**", Proc. National Conference on advancement in Information Technology and Management", AIM 2002 , Dehradun , India, Feb 2002.

52. D S Yadav, "**An Execution Model for Long Duration Transaction Processing in Active Database Management System**" VII Annual Conference of Vijnana Parishad of India, Lucknow ,15-17 Dec 1998.

53. D S Yadav, S K Bajpai , "**A Model for Transaction Scheduling & Concurrency Control in Real Time Database System**" VII Annual Conference of Vijnana Parishad of India, Lucknow,15-17 Dec 1998.

54. D S Yadav, Onkar Singh , "**Real Time Query Processing in Distributed System**", Proc. National Symposium on Computer Applications in Engineering & Technology ,ReTCA'96,March 8-9,1996, PP 49-57 Punjab , India 1996.

8.7. Seminars/ Invited Lecture (Abroad)

55. **Modeling of Multiversion Concurrency Control System Using Event-B**", Federated Conference on Computer Science and Information Systems 2012, Sept 9-12,2012, Wroclaw, Poland.

56. **“Formal Development of Fault Tolerant Transactions for a Replicated Database using Ordered Broadcasts”**, Methods, Models and Tools for Fault Tolerance (MeMoT 2007), July 3, 2007, Oxford, UK.
57. **“Formal Development of Fault Tolerant Transactions for Replicated Database using Ordered Broadcasts”** Group Seminar, DSSE research group, School of Electronics and Computer Science, University of Southampton, UK , 14 May 2007.
58. **“Incremental development of Mondex using Event-B”**, Mondex case study workshop, 4th VSR-net meeting, 5-6 October 2006, University of York, Yorkshire, UK. *(Presented by Professor Michael Butler. The meeting was a part of Grand Challenge 6 on dependable systems evolution set by UK Computing Research Council.)*
59. **“Knowledge Transfer at Grass Root Level”**, Seminar on making university research work for poor, A seminar held at the University of the West of England, Bristol , UK, 16th - 17th September 2006.
60. **“Incremental development of Mondex using Event-B”**, Mondex case study workshop, 3rd VSR-net(Verified Software Repository) meeting, Cosener's House,25-26 May 2006, Abingdon, Oxford, UK. *(Presented by Professor Michael Butler)*
61. **“Incremental Development of Distributed Transaction in Event-B”**, RefineNet Workshop, May 4-5, 2006, Chilworth Manor, Southampton, UK.
62. **“Formal Specifications of Distributed Transactions using Event-B”**, Group Seminar, DSSE research group, School of Electronics and Computer Science, University of Southampton, UK , 15 March 2006.
63. **“Formal Development of Distributed Transactions using Event-B”**, Dagstuhl Seminar Series no 06121 on ‘Atomicity : Unifying concept in computer science’, 19.3.2006 - 24.3.2006, Schloss Dagstuhl, Germany.
64. **“Application of Event-B to Global Causal Ordering for Fault Tolerant Transactions”**, Rigorous Engineering of Fault Tolerant System (REFT2005), July 19, 2005, Newcastle upon Tyne, UK.
65. **“Application of Event-B to Global Causal Ordering for Fault Tolerant Transactions”**, Group Seminar, DSSE research group, School of Electronics and Computer Science, University of Southampton, UK , 22 June 2005.
66. **“Concurrency Control Schemes for Real Time Active Database System ”**, April 11, 2000, Invited Talk at Advanced Computing Research Center ,University of South Australia , Adelaide , Australia.

67. "**Transaction Management in Real Time Active Database System**", Invited Talk at Multimedia University , Kuala Lumpur , Malaysia. Apr 14, 2000.
68. "**Capturing the business processes and their customization on AXAPTA 2.0 : an Integrated ERP Tool**". Sanomed Medizintechnik , Hamburg, Germany ,10 Dec , 1999.
69. "**Transaction Processing in Active Database Management System**" , Invited Lecture organized by Sanomed Medizintechnik , Hamburg, Germany , Oct 3, 1998.

8.8. Seminars/ Invited Lecture /Key Note / FDP Presentations (India)

70. '**Rigorous Design of Dependable Software Systems**', Invited Talk, "National Workshop on Recent Trends in ICT", SIT Mathura, 30 Sept 2012.
71. '**Employment Opportunities**', Key Note, Workshop on Role of Training and Placement Cells in Universities, Univ. of Kanpur, Kanpur, 16 March 2012.
72. '**Rigorous Design of Dependable Broadcast Systems**', Invited Lecture, National Seminar on Emerging Applications on Next generation Networks (IETE), January 23-34, 2010 Taj Residency, Lucknow.
73. '**Development of Dependable Software Systems**', Invited Lecture, National Conference on Research and Development Trends in ICT, Univ. of Lucknow, Feb 13,2010.
74. '**Requirement Engineering**', Key Note, National Conference on Emerging Trends in Information/ Network Security (ETINS- 2010)" ,Amity University, Lucknow Campus and Computer Society of India, Lucknow Chapter, 21st October, 2010 at
75. '**Recent Trends in Information Technology**. Key Note, Techno-Quest 10, in association with Computer Society of India, Lucknow Christian College, Lucknow, 28 October 2010.
76. "**Formal Development of Distributed Systems using Event-B**", Invited Lecture, AICTE assisted Faculty Development Program(FDP) on Issue in Distributed Systems, 31 January 2009, Motilal National Institute of Technology, Allahabad, UP, India.
77. "**Verification of Critical Properties in Transactional Information Systems**", Invited Lecture, Workshop and Faculty Development Program on RDBMS,19-26 Feb 2009, Ambedkar Institute of Technology for Handicapped, Kanpur UP, 23 Feb 2009.

78. **“Verification of Ordering Properties in Broadcast Systems”**, Invited Lecture, Faculty Development Program(FDP) under TEQIP on “Wireless Communication Technologies & Its Applications”, March 2-6,2009, College of Technology, G B Pant university of Ag. & Technology, Pantnagar, March 06, 2009.
79. **“Challenges in Information and Communication Technology”**, Key Note Address, National Conference , LBS Institute of Management and Development Studies, Lucknow, March 27,2009.
80. **“Challenges in Information and Communication Technology”**, Key Note Address, Students Symposia in Computing, SRM College of Engineering and Management, April 04,2009.
81. **“Verification and Validation of Requirements”**, Key Note, Faculty Development Programme on Software Project Management, LBIMDS, Lucknow, 24 June 2009.
82. **“Development of Reliable Software (A case study of Total Order Broadcast) ”**, Invited lecture, Seminar on Advancement in Computing and Technology, BBDNITM, Lucknow, Nov 14,2009.
83. **“Broadcast Protocols for Business Critical Systems”**, Invited Lecture, AICTE Sponsored workshop on Information Security and Its applications, 02 Dec 2009, Indian Institute of Information Technology (IIIT), Allahabad.
84. **“Blogging, Tweeting – Bane or Boon”**, Invited Lecture, IETE Foundation Day Celebration-2009, Lucknow,12 Dec 2009.
85. **“Specifying the programs and Requirements”**, key note address, Faculty development workshop on Java and its Application, Sagar Institute of Technology and Management, 9-11 July, 2008.
86. **“Specifying dependable distributed system”**, Key Note Address, National Seminar on Distributed Computing and Network, Sponsored by AICTE, LBSIMDS, Navin Bhawan Auditorium, September 12, 2008, Lucknow.
87. **“Information System Control ”**,Key Note, Seminar on ‘Information System Control’ organized by LBS Institute of Management Studies, Lucknow, India, March 20, 2004.
88. **“Confirmation of Legal Requirement of Digital Signature ”**, Seminar and R & D Report of IET Lucknow, India, 2002.
89. **“Issues in Real Time Database System ”**, Seminar, R&D Report of IET Lucknow, 2002.

90. **“Technical & Legal aspects of Digital Signatures”**, International Workshop and Training Program on “Cyber Laws, Crimes and Intellectual Property Right “for Judicial Officers of SAARC Countries. Dec 1, 2001 - Dec,13,2001, Judicial Training & Research Institute , Lucknow, India.
91. “Issues **in Real Time Database Design** ”, Two Week Summer Course on “*Foundations of Information Technology* ”, July 2,2001 - July 14,2001, Academic Staff College , U P Technical University, Lucknow, India.
92. "**Electronic Commerce**", Key Note, National Seminar on "Emerging Trends in Information Technology", Regional Science Center, LBSIMS, Lucknow, Dec 15, 2001.
93. “Legal **Issues in Digital Signature**”, Training Program of Judicial Officers of Govt. of Uttar Pradesh, May 25, 2001, Judicial Training and Research Institute, Lucknow.
94. "**Word Processing & Management of Data**", International Workshop and Training Program on “Cyber Laws, Crimes and Intellectual Property Right” for Judicial Officer of South Asian Countries, Jan 6 - Jan 18, 2001, Judicial Training & Research Institute, Lucknow.
95. "**Internet Working**", One week training program on " *Basic Computer Awareness and Internet*”, Senior Officers of Trade Tax Department , Govt of UP , Institute of Management Development , Govt. of UP , Jun 7 , 2000.
96. "**Interactive Session on E Commerce**", One week training program on "*Basic Computer Awareness and Internet* ", Senior Officers of Trade Tax Department, Govt. of UP, Institute of Management Development, Govt. of UP, Jun 8, 2000.

9. Significant Contributions to Knowledge and Profession :

- 9.1 Participated in World Wide Grand Challenge on Dependable Systems Evolution (GC6) instituted by the UK Computing Research Council (UKCRC), Engineering and Physical Research Council (EPSRC) and British Computer Society. This challenge was to achieve a significant body of verified programs that have precise specifications and machine-checked proofs of correctness. The first pilot project in the challenge was to mechanise the proof of correctness of the Mondex smart-card for electronic finance. Eight international research groups tackled the problem. Experience and research outcome of all international groups appeared in a special issue of prestigious computer science journal Formal Aspects of Computing published by British Computer Society and Springer-Verlag.

- 9.2 Participated in EU IST project RODIN (2004-2007) (*Rigorous Open Development Environment for Complex Systems*), a joint research project of leading European universities and industrial partners from UK, Germany, Finland, France and Switzerland. The objective of the project was to develop a methodology and supporting open tool platform for the cost effective rigorous development of dependable complex software systems and services.
- 9.3 Participated in various knowledge dissemination activities to masses, professionals; and government and judicial officers relating IT awareness, systems, tools and practices by organizing workshops, training programs, tutorials, and talks.
- 9.4 As a Project Coordinator (2009-2011), ‘*Virtualization of Technical Education*’, sponsored by Ministry of Communications and Information Technology (MCIT),(2008-2011) Govt. of India. The main objective of the project is to create an infrastructure for IT enabled teaching and learning; and to provide quality technical education to the students studying at Institutions located in rural and remote areas in state of UP and Uttrakhand.

10. Current Research Interests

- *Software Verification and Validation*: Our current research focuses on development of methodologies for verification of software requirements at design phase. It includes application of formal techniques for software system modelling, verification of critical properties, which leads to increase in the dependability and trustworthiness of software.
- *Verification and Reasoning about distributed database systems using Event-B*. In modern commercial applications, data is usually replicated on different sites to improve performance. This involves use of various complex mechanisms for controlling and propagating changes. The design of such systems is usually complex and difficult to get right. In this line of work our emphasis is on developing an abstract understanding of distributed transactions and reasoning about the abstract view and the complex mechanisms found in distributed database designs.

11. Other Information on Professional Activities

1. Visited Wroclaw University of Technology, Wroclaw, Poland to present a paper and participate in the conference FEDCSIS 2012. (09-12 Sept 2012).
2. Visited University Grant Commission, Colombo, Srilanka in relation to examination work of South Asian University, New Delhi. (24-29 May 2012).

3. Worked at School of Electronics and Computer Science, University of Southampton, UK on a commonwealth scholarship. (Sept 2004 – Feb 2008).
4. Visited University of Oxford to participate in the workshop on Methods, Models and Tools for Fault Tolerance, July 3, 2007, Oxford, UK.
5. Visited Bristol Business School, University of West England to participate in Seminar on making university research work for poor, University West England, Bristol , UK, 16th - 17th September 2006.
6. Participated in the workshop on Refinement Methods (RefineNet), May 4-5, 2006, Chilworth Manor, Southampton, UK.
7. Visited Dagstuhl, Germany to participate in Dagstuhl Seminar Series no 06121 on 'Unifying concept in computer science', 19.3.2006 - 24.3.2006, Schloss Dagstuhl, Germany.
8. Visited University of York to participate in Mondex case study workshop, 4th VSR-net meeting, 5-6 October 2006, University of York, Yorkshire, UK.
9. Participated in 3rd VSR-net (Verified Software Repository) meeting, Cosener's House, 25-26 May 2006, Abingdon, Oxford, UK.
10. Visited University of Newcastle to participate in workshop Rigorous Engineering Tolerant System July 19, 2005, Newcastle upon Tyne, UK
11. Visited Hamburg, Germany to deliver a talk in the symposium held in Hamburg, Germany in October 1998 on "*Transaction Processing in Real Time Active Database Management System*".
12. Visited Germany on invitation of a German Company Sanomed Medizintechnik , Hamburg , Germany during Nov 1999 - Jan 2000 for following jobs related with their ongoing project of automation of Business Processes.
 - Evaluation of Business Processes using Powerdesigner 6.2.
 - Integration with ERP product AXAPTA 2.1.
 - Customization the requirement using AXAPTA 2.1
13. Visited Multimedia University, Kuala Lumpur in April 2000.
14. Visited school of Computer & Information Science, University of South Australia, Adelaide in the month of April 2000 to discuss the research issues related with *Transaction Processing in Real Time Active Database System* and a talk on the subject, April 11, 2000.
15. Attended *Microsoft .NET Curriculum workshop* held at Putra World Trade Center 23-28 August, 2003 at Kuala Lumpur, Malaysia.
16. Organized Two Week Summer Course on "*Foundations of Information Technology*" July 2,2001 - July 14,2001 for academic staff of Engineering Colleges/Institutes affiliated to UP Technical University at KIET Ghaziabad under the aegis of Academic Staff College, U P Technical University, Lucknow.

17. Worked as *Assistant Coordinator* for Admission Committee, U P State Engineering Admission Test (Formerly Combined Entrance Examination) for four years in 1994,1995,1996 and 1999 conducted by Institute of Engineering & Technology, Lucknow.
18. Invitation as *Session Chair, Database and Software Engineering* for 3rd International Conference on Information , Communication and Signal Processing (ICICS 2001) , 15-18 Oct 2001 , Singapore. (But I could not attend)
19. Served as *Convener, Core Group of Computer Science & Information Technology* , worked under the supervision of Vice Chancellor , UP Technical University, Lucknow. (2001-2004).
20. *Reproiteur , VII Annual Conference of Vijnana Parishad of India, Lucknow ,15-17 Dec 1998.*
21. Recipient of '*College Merit Certificate*' for achieving academic standard in B.Tech , as prescribed by Academic Council , G B Pant University of Ag. & Technology, Pantnagar.
22. *Certificate of Achievement* awarded as Coach for ACM International Collegiate Programming Contest at IIT Kanpur for Asia Programming Contest 1999.
23. Served as *External Examiner* with Allahabad University, Bundelkhand University , R M L University , Faizabad , D D U University Gorakhpur, Kanpur University, Purvanchal University , Jaunpur , Kumaon University, Nainital , Meerut University, University of Lucknow, , BRA University , Agra , U P Technical University ,Lucknow and IIITM Gwalior.
24. *Head Examiner, Computer Science and Information Technology* at U P Technical University, Central evaluation at Ghaziabad UP held on Apr 8- Apr 26 , 2002.
25. *Head Examiner, Computer Science and Information Technology* at U P Technical University, Central evaluation at Mathura held from Jan 24 – Feb 04 , 2003.
26. *Member, Board of Studies, Computer Sc. & Engineering,* U P Technical University, Lucknow.(2008 onwards)
27. *Asst. Dean of Students,* South Asian University, New Delhi (Oct. 2011 Onwards)
28. *Member, Board of Studies,* Faculty of Mathematics and Computer Science, South Asian University, New Delhi (2011- onwards)
29. *Coordinator,* Modular M.Tech program in Computer Science, Institute of Engineering and Technology, Lucknow (June 2008- July 2011)
30. Served as member of several Expert Committees for affiliation of Institution, Counseling software verification etc. set up by UP Government,/U P Technical University Lucknow.
31. Organized '*Regional Workshop on Scaling Higher Technical Education : Many Facets*', 16-18 Feb 2009 at IET Lucknow jointly with Directorate of Employment

and Training, Govt of UP and Employment Information Bureau, U P Technical University, Lucknow.

32. Organized one day *Microsoft Faculty Development Workshop* at UPTU Noida on June 5, 2009. One hundred and twenty eight participant from Fifty Two Institutions affiliated to UP Technical University attended the workshop. A similar workshop was also organized at IET Lucknow on June 9, 2009 where 66 participants from 28 institutions participated.

12. Countries Visited:

Australia, Belgium, France, Germany, Italy, Malaysia, Netherlands, Poland, Russia, Sri Lanka, Switzerland and United Kingdom.

(Divakar Singh Yadav)