

Dr. D.K. Yadav



Professor
Department of Computer Science & Engineering
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Teaching

Current Course:

- CS1801: Formal Methods

Past Courses:

- CS2216: Object Oriented Modeling & Design
- CA3305: Object Based Modeling
- CS2114: Advanced Data Model
- CS1404: Automata Theory
- CS1401: Analysis of Algorithms
- CS1801: Formal Methods
- CA3104: Foundation of Logic

Biography:

Education

- B.E. from BIET, Jhansi
- M.Tech from MNNIT, Allahabad
- Ph. D. from IIT, Bombay

Appointments Held

SI. No	Designation	Duration	Employer
1	Professor	March 28, 2018 to Till Date	MNNIT, Allahabad
2	Associate Professor	March 24, 2012 to March 27, 2018	MNNIT, Allahabad
3	Assistant Professor (AGP Rs. 8000)	March 24, 2009 to March 23, 2012	MNNIT, Allahabad
4	Assistant Professor (AGP Rs. 7000)	January 1, 2006 to March 23, 2009	MNNIT, Allahabad
5	Sr. Lecturer	March 24, 2004 to December 31, 2005	MNNIT, Allahabad
6	Lecturer	March 24, 1999 to March 23, 2004	MNNIT, Allahabad
7	Lecturer	July 14, 1998 to March 23, 1999	GBPEC, Pauri, Garhwal

Others

LIST OF ADMINISTRATIVE POSITIONS HELD

SI. No.	Positions	Duration
1.	Dy. Chief Proctor	March, 2017 to Till Date
2.	Nodal Officer (Visesvaraya Ph.D. Scheme for Electronics and IT)	February, 2017 to Till Date
3.	Dean R&C Member	July, 2016 to Till Date
4.	Convener, DDPC	July, 2016 to Till Date
5.	Convener, DMPC	July, 2014 to July, 2016
6.	Warden In charge	July, 2008 to November 2011
7	Member, DPGC, CSED	January, 2002 to July 2004
8	Officer in charge Volley ball	January, 2002 to January 2004
9	Officer in charge Computer Systems Lab	July, 1999 to July 2004
10	Assistant Warden	June, 1999 to July, 2001

Research Interest

The areas of my research interest include:

- Software Architecture Modeling
- Cloud Computing
- Formal Methods.
- Service Oriented Architecture

Summer Training Program/Workshop Organized

Sl. No.	Course Name	Duration
1	NMEICT-2014	29 th August -30 th August 2014
2	Enhancing Skill for Enterprise Scale Application Development ((ES)2AD)-2016	20 th June -2 nd July, 2016
3	Enhancing Skill for Enterprise Scale Application Development ((ES)2AD)-2017	9 th June -6 th July, 2017

Significant Outreach Institute Activities

Sl. No.	Nature of Activity	Activity Title	Department / Institute	Period	Sponsoring Agency (if any)
1	Expert Talk	Reusable Software Development using Object Oriented Principles	CSED / MMMUT Gorakhpur, India	27-03-2017 To 27-03-2017	MMMUT Gorakhpur
2	Invited Talk	Architecture Modelling Through Pi- Calculus	CSED/ Dr. BATU Lonere, Maharashtra, India	29-09-2016 To 29-09-2016	Dr. BATU Lonere, Raigad, Maharashtra
3	Expert Talk	Why Object Oriented System Development	CSED/ VBSPU Jaunpur, India	29-08-2016 To 29-08-2016	VBSPU Jaunpur, India
4	Member of Selection Committee	Selection of Guest Faculty as a Subject Expert/ O.B.C. Nominee	CSED/ BIET Jhansi, U.P.	21-07-2016 To 23-07-2016	BIET Jhansi, U.P.
5	Member of Selection Committee	Selection of Guest Faculty/ Lecturers	CSED/ GEC Banda U.P.	19-01-2016 To 19-01-2016	Government Engineering College Banda U.P.

LIST OF SHORT TERM COURSES AND CONFERENCES ATTENDED:

SI. No.	Course Title
1.	3rd Workshop on “Formal Methods in Safety Critical and Industrial Applications”, held at IIT, Bombay, 16 -18 June, 2005.
2.	“Formal Methods Update”, held at IIT, Bombay, 18- 22 July, 2005.
3.	First Indian Winter School on “Logic and its relationship with Other disciplines”, held at IIT, Bombay, 3 -18 January, 2006.
4.	Faculty Development Program on “Wireless and Mobile Communication” , held at MNNIT, Allahabad, 30 June - 12 July, 2008.
5.	Faculty Development Program on “ Issues and Design of Distributed System and Its Applications” held at MNNIT Allahabad, 27 January – 07 February, 2009.
6.	TECS Week 2010 on “Formal methods in software, testing and debugging”, held at TRDDC, Pune, 4-8 January, 2010.
7.	IEEE 2nd International Advance Computing Conference (IACC 2010)” held at Thapar University, Patiala, India, 19-20 Feb 2010.
8.	International Conference on “Advances in Distributed and Parallel Computing”, held at Singapore, 1-2 November, 2010,
9.	International conference on Software Engineering (ICSE2014) held at Hyderabad, 31 May -07 June 2014.
10.	Workshop-POSOS held at Hyderabad on 31 May, 2014.
11.	Workshop-TwinPeaks held at Hyderabad on 1 June, 2014.
12.	Workshop-MiSE held at Hyderabad on 2-3 June, 2014.
13.	Workshop-FormaliSE held at Hyderabad on 3 June, 2014.
14.	7th International Conference on “Software Technology and Engineering (ICSTE2015)” held at Kowloon City, Hong Kong, 19-20 September 2015
15	7th International Workshop on Computer Science and Engineering (WCSE 2017) (ISBN) 2017

Conference & Journal Proceedings: 25

1. Ram Chandra Bhushan, **Dharmendra Kr. Yadav** " Modeling a Safety-Critical System through CCS" in Journal IJAER (0973-4562)Volume-12 Number-21, 2017
2. Ram Chandra Bhushan, **Dharmendra Kumar Yadav** "Number of test Cases Required in Achieving Statement, Branch and Path Coverage using 'gcov': An Analysis" 7th International Workshop on Computer Science and Engineering (WCSE 2017) (ISBN-978-981-11-3671-9) 2017.
3. Ashish Kr.Mishra, **Dharmendra Kr. Yadav**" Analysis And Prediction of Amazon EC2 Spot Instance Prices" in Journal IJAER (0973-4562)Volume-12 Number-21, 2017
4. Sonam Agarwal, Ashish Kr.Mishra, **Dharmendra Kr. Yadav** " Forecasting Price of Amazon Spot Instances using Neural Networks" in Journal IJAER (0973-4562) Volume-12 Number-20, 2017
5. Ashish Kumar Mishra and **Dharmendra K. Yadav**, "Towards Validation of UML Design Model" in International Conference on Communication and Signal Processing (ICCASP 2016) December 26th-27th, 2016 at Lonere, Raigad (MS), India.
6. Ashish Kumar Mishra and **Dharmendra K. Yadav**, "Validation of UML Design Model", In Journal of Software (JSW, ISSN 1796-217X) 10(12) Dec, 2015 page 1359
7. Atul Vikas Lakra, **Dharmendra Kumar Yadav**" Multi-Objective Tasks Scheduling Algorithm for Cloud Computing Throughput Optimization" International Conference on Intelligent Computing , Communication & Convergence Conference Organized by Inter- science Institute of Management and Technology, Bhubaneswar, Odisha, India , 2015
8. Manoj Kumar, **DK Yadav** and Vijay Kumar Gupta, "Frequent Term Based Text Document Clustering: New Approach" In International Conference on Soft Computing Techniques & Implementations(ICSCITI-2015), October 8-10, 2015 Faridabad, India.
9. Manoj Kumar, **D.K. Yadav**, Ankur Singh and Vijay Kumar Gupta, "A Movie Recommender System :MOVREC", In International Journal of computer Application 124(3), 7-11 August, 2015
10. Ashish Kumar Mishra and **Dharmendra Kumar Yadav**, "Towards Validation of UML Rules", in International Conference of Computing Paradigms (ICCP-2015), Yelagiri Hills, India, July 24-25, 2015.
11. Yadvendra Pratap Singh , Ram Pal Singh, Ajai Kumar Singh and **Dharmendra Kumar Yadav** ," Using GIS and Remote Sensing Technique for Zoning of Wastewater Drainage of Allahabad City", In International Journal of Advanced Remote Sensing & GIS (IJARSG) 4(1) 2015
12. Vartika Bajpai, **D.K. Yadav** " Management and Validation of VGI" ICETACS (ISBN- 978-1-4673-5250-5) 2013
13. Sapana Shukla, Ramashankar Yadav and **Dharmendra Yadav**, "Component Interoperability using Aspect Oriented Approach", in 3rd IEEE Conference on Computer and Communication Technology (ICCT-2012), Allahabad, India, Nov, 2012.
14. Vinod Kumar Yadav, MahendraPratap Yadav, **Dharmendra K. Yadav** "Reliable Task Allocation in Heterogeneous Distributed System with Random Node Failure:Load Sharing Approach" International Conference on Computing Sciences 2012

15. Vinod Kumar Yadav, **Dharmendra K. Yadav** "Reliable Task Allocation in Distributed System" In International Conference on Software Engineering Research and Practice (SERP'12) July 16-19, 2012, Las Vegas, , Nevada, USA.
16. Manu Vardhan, **D. K. Yadav**, Dharmender Singh Kushwaha, "A Transparent Service Replication Mechanism for Clouds", The Sixth International Conference on Complex, Intelligent, and Software Intensive Systems (CISIS-2012), July 4th-July 6th, 2012, Palermo, Italy.
17. Krishna Giri and **Dharmendra K. Yadav**, "Modeling and Verifying Web Service Broker Based Architecture using CCS" In International Conference on Advances in Engineering, Science and Management (IEEE-ICAESM 2012) March 30-31, 2012, Nagapattinam, India.
18. Tulika Narang, **Dharmendra K. Yadav** and Rama Shankar Yadav, "Modelling Time using Metapattern" In International Conference on Computer Technology and Development (ICCTD 2011) November 25-27, 2011, Chengdu, China.
19. Reshu Kapoor and **Dharmendra Kumar Yadav**, "Formal Description of Architectural Patterns" In International Conference on Computer and Software Modeling, (ICCSM 2011) September 16-18, 2011, Singapore.
20. Shrikant G. Ambade and **Dharmendra K Yadav**, "Formalization of BIG Architecture Based on Pi Calculus" in International Conference on Information and Computer Technology (ICICT-2011) August 27- 28, 2011, Yantai, China.
21. Gopal Singh Kushwah and **Dharmendra K Yadav**, "Modeling and Verifying Web Services Composition Using PI-Calculus" In International Conference on Software Technology and Engineering (ICSTE 2011) August 12-14, 2011, Kuala Lumpur, Malaysia.
22. Tulika Narang and **Dharmendra K. Yadav**, "Capturing Dynamic Behavior in Relational Model" In International Conference on Software Engineering Research and Practice (SERP'11) July 18-21, 2011, Las Vegas, , Nevada, USA.
23. Shrabani Mallick, Namoo Narayan Meena, **D.K.Yadav**, Dharmender Singh Kushwaha, "Composition of Heterogeneous Web Services for Converting Legacy Codes to SOA based Applications" in International Conference on Software Engineering and Data Engineering (SEDE-2011) June 20 – 22, 2011, Las Vegas, Nevada, USA.
24. Shakti Mishra, **D.K.Yadav**, D.S. Kushwaha and A.K.Mishra, "Self-Organizing Clusters for Load Balancing: A B⁺ Tree Based Approach" International Conference on Advances in Distributed and Parallel Computing, November 1-2, 2010, Singapore.
25. **Yadav, D.K.** and Joshi, R.K., " Capturing interactions in architectural patterns" In IEEE 2nd International Advance Computing Conference (IACC 2010) 19-20 Feb 2010, Thapar University,Patiala, India.

Thesis Supervised/Supervising

Ph.D.

SI. No	Name & Reg no	Research Topic	Status
1	Mr. Brajesh Kumar Umrao, 2015RCS13 (Full Time)	Cloud Computing	State of Art Completed
2	Ashish Kumar Mishra 2015RCS13 (Full Time)	Cloud Computing	State of Art Completed
3	Mahendra Pratap Yadav 2015RCS13 (Full Time)	Cloud Computing	State of Art Completed
4	Ram Chandra Bhushan 2015RCS13 (Full Time)	Software Modeling	State of Art Completed
5	Nisha Pal 2015RCS13 (Full Time)	Software Modeling	Comprehensive Completed
6	Sunita Jalal 2015RCS13 (Full Time)	Software Modeling	Comprehensive Completed
7	Harish Chandra 2015RCS13 (Full Time)	Cloud Computing	Course Work Running

M.Tech : 46

1. PERFORMANCE EVALUATION OF ROUTE OPTIMIZATION SCHEME FOR MOBILE IP IN HIERARCHICAL NETWORK, Ms Shraddha, 2002-2003
2. AN IMPROVED PEER TO PEER NETWORK ARCHITECTURE, Mr. Ramakant Mohanty, 2002-2003
3. ROUTE OPTIMIZATION IN MOBILE IP WITH TEMPORARY HOME AGENTS, Mr. Rajinder Singh, 2002-2003
4. DESIGNING RELIABLE COMMUNICATION PROTOCOL FOR MOBILE AGENTS USING MEFS & MAILBOX BASED TECHNIQUE, Mr. Akhilesh Kumar, 2003-2004
5. EFFICIENT METHOD FOR COMMUNICATING RELIABLY WITH MOBILE AGENTS USING MESSAGE FORWARDING SCHEME WITH UPDATES, Ms. Namita Jain, 2003-2004
6. EFFICIENT SIGNAL-STABILITY BASED ADAPTIVE ROUTING (SSA) PROTOCOLS FOR MOBILE AD HOC NETWORKS, Mr. Raghava Yadav, 2003-2004
7. DESIGN AND DEVELOPMENT OF WEB BASED SYSTEM AUTOMATION, Mr. Sudhakar Pandeya, 2003-2004
8. ROUTE OPTIMIZATION USING OSPF-OMP ALGORITHM, Mr. Parvendra Kr Chauhan, 2003-2004
9. MODELLING ASYNCHRONOUS MESSAGE EXCHANGE PATTERNS IN CCS, Mr. Lucknesh Kumar, 2009

10. EXTENDING BUSINESS PROCESS MODELING LANGUAGE AND MAPPING TO WS-CDL WITH PROCESS GOALS, PERFORMANCE, EVALUATION AND SCALABILITY, Ms. Reena Sonakia, 2009
11. AN ARCHITECTURE DESCRIPTION LANGUAGE FOR WEB SERVICES, Mr. Saroj Kumar, 2009
12. MODELING AND VERIFYING WEB SERVICES COMPOSITION USING CCS, Mr. Krishna Giri, 2010
13. FORMAL DESCRIPTION OF DESIGN PATTERNS, Ms. Reshu Kapoor, 2011
14. MODELING AND VERIFYING WEB SERVICES COMPOSITION USING PI-CALCULUS, Mr. Gopal Sing Kushwah, 2011
15. FORMALIZATION OF BIG ARCHITECTURE THROUGH PI CALCULUS, Mr. Srikant G Ambare, 2011
16. AN INTERFACE FORMALISM OF WEB SERVICES BASED PROTOCOL SPECIFICATION AND COMPONENT ADAPTER USING PI-CALCULUS, Mr. Mahendra Pratap Yadav, 2012
17. A REWARD BASED GENETIC ALGORITHM FOR OPTIMAL WEB SERVICE SELECTION, Mr. Arpit Solanki, 2012
18. FRAMEWORK FOR CONTINUOUSLY MOVING OBJECT TO MONITOR RESULT CHANGES OF SPATIO TEMPORAL QUERIES USING DATA STREAM MANAGEMENT SYSTEM, Mr. Brijesh Pandey, 2012.
19. FORMALIZATION OF EFFICIENT WEB CACHING PATTERN, Mr. Ujjal Kumar Das, 2012
20. A PRIORITY BASED BATCH SCHEDULING METHOD IN CLOUD COMPUTING ENVIRONMENT, Mr. Swagat Ranjn Sahoo, 2012
21. RELIABLE TASK ALLOCATION IN DISTRIBUTED SYSTEMS, Mr. Vinod Kumar Yadav 2012
22. A KNOWLEDGE BASED APPROACH FOR COMPONENT COMPOSITION, Mr. Manish Kumar Singh, 2012
23. GIS DATA BASE CREATION USING REMOTE SENSING TECHNOLOGY IN AND AROUND MOTICHUR AREA, UTTARKHAND AND IT'S CHANGE DETECTION IN LAST 40 YEARS, Mr. Ashutosh tiwari, 2012
24. CLOUD MODEL FOR INTERACTIVE COMMUNICATION, Mr. Manish K. Mehrotra, 2012
25. MULTI OBJECTIVE TASK SCHEDULED ALGORITHM FOR CLOUD COMPUTING THROUGHPUT OPTIMIZATION, Mr. Atul Vikash Lakra, 2013
26. IMPROVED MINIMUM EXECUTION TIME ALGORITHM IN CLOUD COMPUTING ENVIRONMENT, Mr. Rahul Singh, 2013
27. MODELING AND FORMAL ANALYSIS OF BPMN THROUGH CCS, Mr. Arun Pratap Singh, 2013
28. APPLICATIONS OF MAXIMUM CLIQUE IN SOCIAL NETWORK ANALYSIS, Mr. Nand Kishore, 2013
29. GRAPH EDIT DISTANCE USING SPANNING TREE, Apoorva Singhraul, 2013
30. FREQUENT TERM BASED TEXT DOCUMENT CLUSTERING: A NEW APPROACH, Manoj Kumar, 2013
31. MODELING AND VERIFICATION IN NuSMV OF INTERFACING INCOMPATIBLE PROCESSES THROUGH ADAPTATION, Mr. Sandeep Sing, 2013

32. ZONING OF WASTE WATER DRAINAGE OF ALLAHABAD CITY USING GIS, Mr. Yadvendra Pratap Singh, 2013
33. DESIGN AND PERFORMANCE BENCHMARKING OF GEO-PORTAL FOR URBAN MANAGEMENT, Ms. Vartika Bajpai, 2013
34. ADAPTIVE DEPLOYMENT OF SOFTWARE APPLICATIONS IN DISTRIBUTED ENIRONMENT, Mr. Nitin Kumar, 2014
35. EFFICIENT GRAPH SIMILARITY ALGORITHMS, Ms. Sugandha Srivastava, 2014
36. AN EFFICIENT MESSAGE AUTHENTICATION IN VANETS, Mr. Mainegar Yadav, 2014
37. ENHANCEMENT IN SECURITY TECHNIQUES USING IMAGE STEGNOGRAPHY, Mr. Ravi Kant, 2015
38. VALIDATION OF UML DESIGN MODELS, Mr. Ashish Kumar Mishra, 2015
39. LOAD BALANCING ACROSS CONTROLLERS IN SOFTWARE DEFINED NETWORK, Mr. Kalva Nithish Reddy, 2015
40. FREQUENT TERM BASED TEXT DOCUMENT CLUSTERING A NEW APPROACH, Mr. Manish Kumar,2015
41. ENHANCED CLOUDSKY GENERATION OF RANDOM TTL FOR THE ENCRYPTION KEY, Mr. Kambhattla Shashikant, 2016
42. PERFORMANCE EVALUATION OF SPOT INSTANCES IN FEDERATED CLOUD COMPUTING ENVIRONMENTS, Mr. Sumit Tomar, 2016
43. A PIPELINED APPROACH TO MAPREDUCE JOB SCHEDULING, Ms. Mini Goyal, 2016
44. ALGORITHM FOR A SELF-DRIVEN INDOOR ROBOT USING ARTIFICIAL INTELLIGENCE, Mr. Ravi Kaler,2017
45. APPROPRIATE NUMBER OF ANOLOGUES IN ANALOGY BASED SOFTWARE EFFORT ESTIMATION, Ms. Veerangana Shivani, 2017
46. CHECK-POINTING WITH MIGRATION FOR SPOT INSTANCES, Ms. Sonam Agarwal, 2017

M.Tech: 2016-18 (Pursuing)

Sl. No.	Student Name	Thesis Area	Supervisor(s)
1.	Akansha Kunwar 2016CS01	Cloud Computing	Dr. DK Yadav
2.	Preeti Vishwakrma 2016IS07	Cloud Computing	Dr. DK Yadav
3.	Abhishek Kesarwani 2016SW05	Cloud Computing	Dr. DK Yadav

B.Tech Projects: 16

Sl. No.	Title of Dissertation/Project	Department/ Institute		Co-Supervisor [s], if any	Year
1.	Price Prediction for Spot Instances in Cloud	CSED	MNNIT	NIL	2017
2.	Virtual Machine Management among Nodes in Cloud	CSED	MNNIT	NIL	2017
3.	Smart ED	CSED	MNNIT	NIL	2016
4.	Online Collaborative Spreadsheet	CSED	MNNIT	NIL	2016
5.	Medical Emergency System for Road Accidents	CSED	MNNIT	NIL	2016
6.	Modelling Compensation in Long Running Transaction	CSED	MNNIT	NIL	2015
7.	Modelling Conversion of Trace Semantics of LRT from CSP to CCS	CSED	MNNIT	NIL	2015
8.	Controlling Computer using Voice Commands: A Windows Application	CSED	MNNIT	NIL	2015
9.	Optimization of Graph Edit Distance Algorithm for Software Adaptation	CSED	MNNIT	NIL	2014
10.	Software Composition Through Formally Verified Reusable Components	CSED	MNNIT	NIL	2014
11.	Translation of Abstract C++ Code To CCS Expression and Intermediate Tree Generation	CSED	MNNIT	NIL	2013
12.	M-Connect	CSED	MNNIT	NIL	2013
13.	Implementation of Extended Tree Edit Distance Using Subtree for Optimization in C	CSED	MNNIT	NIL	2013
14.	Modeling of Software Adaption through CCS	CSED	MNNIT	NIL	2012
15.	Modeling of Component Adaptation	CSED	MNNIT	NIL	2012
16.	Java Implementation of Software adaption from CCS model	CSED	MNNIT	NIL	2012