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Volume-4

EVALUATIVE REPORT

DEPARTMENT OF COMPUTER SCIENCE AND
ENGINEERING

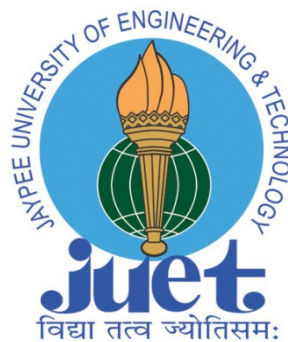
for

ASSESSMENT AND ACCREDITATION

Submitted to

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE



JAYPEE UNIVERSITY OF ENGINEERING AND TECHNOLOGY
GUNA

November 26, 2015

EVALUATIVE REPORT OF THE DEPARTMENT

1. **Name of the Department** : Computer Science and Engineering (CSE)
2. **Year of establishment** : 2003.
3. **Is the Department part of a School/Faculty of the university?**

JUET is a unitary University. It has departments that include Department of Computer Science and Engineering.

4. **Names of programs offered**

- Ph.D.(Full Time/ Part Time)
- PG- M.Tech. (Computer Science and Engineering)
- UG- B.Tech. (Computer Science and Engineering)

5. **Interdisciplinary program and departments involved**

- All students of B.Tech. and M.Tech. programs have to take several core courses from other departments- Electronics and Communication engineering (ECE), Humanities and Social Sciences (HSS), Mathematics (Math), and Physics (Phy). Beyond these core courses there are many interdisciplinary electives are being offered to these students.
- Some courses are also offered by department to all other disciplines of the B.Tech. and M.Tech. programs.
- Following are the number of credits and percentage of courses taken by other departments of the University in programs offered by CSE departments.

| Course | Total Credits | ECE | | HSS | | Math | | Phy | | Others* | |
|---------|---------------|-----|------|-----|-------|------|------|-----|------|---------|------|
| | | No. | % | No. | % | No. | % | No. | % | No. | % |
| B.Tech. | 195 | 32 | 16.4 | 24 | 12.31 | 19 | 9.74 | 13 | 6.67 | 3 | 1.53 |
| M.Tech. | 76 | 0 | 0 | 0 | 0 | 3 | 3.95 | 3 | 3.95 | 0 | 0 |

*Department of Civil Engineering (CE), Mechanical Engineering (ME), and Chemical Engineering (CHE) share a 3 credit course in B.Tech. 2nd semester

- Department is planning to start M.Tech. (Computational Informatics) in collaboration with Department of Mathematics and HSS. It is under process of development and approval.

6. Courses in collaboration with other universities, industries, foreign institutions, etc.

a) With other University

In B.Tech. VII Semester, the students are selected on the merit basis for the study of VIII Semester at the University of Florida, USA; under credit transfer scheme.

b) With industries

B. Tech. final year students selected by various companies like Infosys and Accenture etc. use to complete their Project Part-II at the company site. The credits/grade earned for this course gets added to their transcript under the credit transfer scheme.

7. Details of programs discontinued, if any, with reasons

Any program has not been discontinued till date.

8. Examination System

Semester, along with choice based credit system. Following are the details for evaluation of all type of courses

Examinations

To train the student to put in sustained and disciplined work over the entire period of study, following pattern of examination is being implemented in the University. Some important components of the examination pattern are as mentioned below:-

I. Theory Courses

The University follows the semester systems and accordingly three examinations held in each semester for theory courses. These examinations have a total weightage of 75%; the balance 25% allocated to Assignments, Quizzes, Tutorial, and Regularity in Attendance etc. by the Course Coordinator/ Teacher. Details of examinations and their weightage are as follows:-

a) Theory Tests/Examinations

Three tests/examinations held in each semester as specified in previous section. Tests/examinations are as under:-

- (i) Test-1 or T-1
- (ii) Test-2 or T-2
- (iii) Test-3 or T-3

- b) **Weightage of marks, duration & Syllabus for theory test/examination Allotment of weightage of marks i.e.75% of total & Syllabus, duration, marks for each Tests/Examination will be as under:-**

Allotment of marks:

| | | | |
|---------------------|-----|-----|-----|
| Tests/Exams | T-1 | T-2 | T-3 |
| Percentage of marks | 15 | 25 | 35 |
| Duration in Hours | 1 | 1 ½ | 2 |

Syllabi Coverage:

The syllabus for each test is course contents covered up to the last day of teaching before the examination.

- c) **Allotment of remaining weightage of marks i.e. 25% of total.**

Remaining weightage of marks i.e. 25% including 5% of attendance awarded by respective course coordinator in each theory course through the individual events i.e. Assignments, Tutorials, Quizzes, Regularity & Punctuality in class attendance on the basis of entire semester performance of the individual student.

II. Practical Courses

The evaluation of Practical / Laboratory / Sessional / Workshop work are based on the following:-

- | | |
|--|-------|
| a) Day to day work | 70% |
| a. Attendance and discipline in laboratory | (15%) |
| b. Quantity & Quality of Experiments Performed, Learning laboratory skills and handling laboratory equipment, Instruments, gadgets, components, materials and software etc. | (40%) |
| c. Laboratory record | (15%) |
| b) Mid-Semester lab-viva voce / test (P-1) | 15% |
| c) End Semester lab - viva voce / test (P-2) | 15% |

III. Evaluation for Projects Courses

Project courses shall be run in the final year of B.Tech. & M.Tech. only i.e. in the pre-final semester and final semester each, under the guidance of a Supervisor appointed for individual student or a group of students, and separate evaluation will be done in each semester.

The following evaluation scheme will be followed in each semester while evaluating and awarding grades:

- | | |
|---|---|
| a) Day to day work | 35% awarded by the Supervisor(s) |
| b) One Mid-Term Seminar by the students on the project work | 15% awarded by a panel of examiners |
| c) One Viva-Voce Examination between Test T-2 and Test T-3 | 15 % awarded by a panel of examiners |
| d) Project Report | 15% awarded by the supervisor (s) |
| e) Final Viva-Voce/ teachers Defense/ Dissertation | 20% awarded by a panel of three including Supervisors. In case of M.Tech. Programs, External examiner being a part of the panel |

9. Participation of the department in the courses offered by other departments

In addition to many elective courses, the Department offer following core courses in the B.Tech./M.Tech. programs of other departments:

| Beneficiary Department | Course Name |
|----------------------------------|---|
| All Branches of B.Tech. programs | Introduction of Computers and Programming |
| All Branches of B.Tech. programs | Computer Programming Lab |
| B.Tech. ECE | Data Structures |
| B.Tech. ECE | Data Structures Lab |
| B.Tech. ECE | Unix Programming Lab |
| B.Tech. ECE | Multimedia Lab |
| B.Tech. ECE | Object Oriented Systems and Programming |
| B.Tech. ECE | Object Oriented Systems and Programming Lab |
| B.Tech. ECE | Multimedia Systems |

10. Number of teaching posts sanctioned, filled and actual (Professors/Associate Professors/Asst. Professors/others)

| Positions | | Sanctioned | Filled | Actual (including CAS & MPS) |
|----------------------|------|------------|--------|------------------------------|
| Professor | | 3 | 1 | |
| Associate Professors | | 6 | 1 | |
| Assistant Professors | G-I | 20 | 1 | |
| | G-II | | 13 | |
| | SG | | 3 | |
| Teaching Assistants* | | | | 11* |

*Full time Ph.D./M.Tech. Students

11. Faculty profile with name, qualification, designation, area of specialization, experience and research under guidance-

| Name | Qualification | Designation | Specialization | No. of Years of Experience | No. of Ph.D./ M.Phil. students guided for the last 4 years |
|---------------------|---------------|----------------------------|---|----------------------------|---|
| Prof. Shishir Kumar | Ph.D. | Professor and HOD | Grid Computing and Software Engineering | 16 | Ph.D. Supervision- Completed: 06 Ongoing: 08 M.Tech. Guidance - Completed: 08 |
| Dr. Vipin Tyagi | Ph.D. | Associate Professor | Image Processing | 22 | Ph.D. Supervision- Completed: 04 Ongoing: 02 M.Tech. Guidance- Completed: 02 |
| Dr. Mahesh Kumar | Ph.D. | Assistant Professor (SG) | Network Communication | 11 | Ph.D. Supervision- Completed: 0 Ongoing: 03 M.Tech. Guidance - Completed: 04 |
| Dr. Harikesh Singh | Ph.D. | Assistant Professor (G-II) | Distributed and Grid Computing | 8 | Ph.D. Supervision- Completed : Ongoing : 01 M.Tech. Guidance - Completed : 02 |

| | | | | | |
|--------------------------|---------|----------------------------|---------------------------------------|----|--|
| Dr. Neeraj Kumar Rathore | Ph.D. | Assistant Professor (SG) | Grid Computing, Cloud Computing | 10 | Ph.D. Supervision-Completed : Ongoing : 01 M.Tech. Guidance - Completed : 06 |
| Dr. Amit Kumar | Ph.D. | Assistant Professor (G-II) | Soft Computing | 12 | Ph.D. Supervision-Completed: Ongoing: 01 M.Tech. Guidance - Completed: 06 |
| Dr. Prateek Pandey | Ph.D. | Assistant Professor (G-II) | Computational Intelligence | 9 | Ph.D. Supervision-Completed : Ongoing : 02 M.Tech. Guidance - Completed : 03 |
| Dr. Ratnesh Litoriya | Ph.D. | Assistant Professor (G-II) | Software Engineering | 10 | Ph.D. Supervision-Completed : Ongoing : 01 M.Tech. Guidance - Completed : 03 |
| Mr. Ajay Kumar | M.E. | Assistant Professor (G-II) | Data Mining, | 9 | M.Tech. Guidance - Completed : 02 |
| Mr. P.S. Banerjee | M.Tech. | Assistant Professor (G-II) | Artificial Intelligence and Natural | 9 | M.Tech. Guidance - Completed : 03 |
| Mrs. Babita Tiwari | M.Tech. | Assistant Professor (G-II) | Image Processing, Compiler Design | 8 | M.Tech. Guidance - Completed: Nil |
| Mr. Ravindra Kumar Singh | M.Tech. | Assistant Professor (G-II) | Computer Networks | 8 | M.Tech. Guidance - Completed :03 |
| Mr. Neelesh Kumar Jain | M.Tech. | Assistant Professor (G-II) | Digital Image Processing and Forensic | 10 | M.Tech. Guidance - Completed : 04 |
| Mr. Dinesh Kumar Verma | M.Tech. | Assistant Professor (G-II) | Software Engineering | 9 | M.Tech. Guidance - Completed : 02 |
| Mrs. Deepshikha Tiwari | M.Tech. | Assistant Professor (G-II) | Image Processing | 7 | M.Tech. Guidance - Completed : 01 |

| | | | | | |
|---------------------------|---------|----------------------------|-------------------------|----|------------------------------------|
| Mr. Nileshkumar R. Patel | M.Tech. | Assistant Professor (G-II) | Computer Network | 10 | M.Tech. Guidance - Completed : 05 |
| Mr. Amit Kumar Srivastava | M.Tech. | Assistant Professor (G-II) | Information Security | 8 | M.Tech. Guidance - Completed : 02 |
| Mr. Ashish Gupta | M.Tech. | Assistant Professor (G-II) | Wireless sensor network | 3 | M.Tech. Guidance - Completed : 02 |
| Mr. Kunj Bihari Meena | M.Tech. | Assistant Professor (G-I) | Image Processing | 2 | M.Tech. Guidance - Completed : Nil |

12. List of senior Visiting Fellows, adjunct faculty, emeritus professors

| S. No. | Name | Designation | The type of activity the expert was engaged and the research benefit to department. |
|--------------------------------|-------------------------|--|--|
| Senior Visiting Fellows | | | |
| 1 | Prof. R. C. Chakraborty | Former Director of DTRL and ISSA, DRDO. | Lectures and Research Collaboration in the area of Artificial Intelligence |
| 2 | Prof. Raj Jain | Washington University , St. Louis | Workshop for faculty development and research inputs in the area of Computer System Performance Analysis |
| 3 | Prof. Partha Dasgupta | Arizona State University, USA | Workshop for faculty development and research inputs in Computer Networking |
| 4 | Prof. Laxmi N. Bhuyan | University of California, Riverside, USA | Workshop for faculty development and research inputs in Network Computing |
| 5 | Dr. Carsten Mueller | Nuremberg, Germany | Workshop for faculty development and research collaboration in the area of Component Based Software Engineering. |
| 6 | Mr. Timaniya Naresh | Phenix Lab , Ahmedabad | Workshop and research inputs for Use of Java in Simulation Tools |
| 7 | Mr. Prashant Pandey | STMicroelectronics, Greater Noida | Invited lectures of Simulation of Grid Computing |
| 8 | Prof. Nikhil Kothari | Dharm Singh Desai University, Nadiad | Workshop for faculty development and research collaboration in the area of Network Communication. |

| | | | |
|------------------------|------------------------|---|--|
| 9 | Dr. Deepak Singh Tomar | MANIT, Bhopal | Workshop for faculty development and research collaboration in the area of Information Security |
| Adjunct Faculty | | | |
| 1 | Dr. Aniket Mahanty | University of Auckland, Auckland, New Zealand | Research Collaboration in the area of Artificial Intelligence and Network Communication and Security |
| 2 | Dr. Carsten Mueller | Nuremberg, Germany | Workshop for faculty development and research collaboration in the area of Component Based Software Engineering. |

13. Percentage of classes taken by temporary faculty-programme-wise Information
Nil

14. Programme-wise Student Teacher Ratio

- For the B.Tech. program the student teacher ratio is 22 : 1
- For the M.Tech. program the student teacher ratio is 11 : 1

15. Number of academic support staff (technical) and administrative staff: sanctioned, filled and actual

| | Sanctioned | Filled | Actual |
|----------------|---------------------------------------|---------------|---------------|
| Technical | 5 | 5 | 5 |
| Administrative | Centrally managed at University level | | |

16. Research thrust areas as recognized by major funding agencies

Following are the research thrust areas where the different projects are carried and funded by different agencies

I. Network and Information Security

Network security has become more important to personal computer users, organizations, and the military. With the advent of the Internet, security became a major concern and the history of security allows a better understanding of the emergence of security technology. The Internet structure itself allowed for many security threats to occur. Many businesses secure themselves from the Internet by means of firewalls and encryption mechanisms. The businesses create an Intranet to remain connected to the Internet but secured from possible threats. The entire field of network security is vast and in an evolutionary stage.

Network securities have been acknowledged as emerging area by premier organizations and funding agencies such as DRDO, DIT, MHRD, UGC and DST. The department is completed a Project “Security Enhancement of File System” funded by DRDO, Govt of India.

II. Image Processing

In imaging science, image processing is processing of images using mathematical operations by using any form of signal processing for which the input is an image, such as a photograph or video frame; the output of image processing may be either an image or a set of characteristics or parameters related to the image. Most image-processing techniques involve treating the image as a two-dimensional signal and applying standard signal-processing techniques to it.

Image processing usually refers to digital image processing, but optical and analog image processing also are possible. This article is about general techniques that apply to all of them. The acquisition of images (producing the input image in the first place) is referred to as imaging.

Image Processing have been acknowledged as emerging area by premier organizations and funding agencies such as DRDO, DIT, MHRD, UGC and DST.

The department is completed a three Projects in this area as mentioned below

- a) “Detection of Forgery in images stored in digital form” funded by DRDO, Govt of India.
- b) “A new approach for handwriting recognition using simple algorithms” funded by Computer Society of India.
- c) “Content Independent Author Identification of a Handwritten Document” funded by MPCST, Govt. of MP India.

17. Number of faculty with ongoing projects from a) national b) international funding agencies and c) Total grants received. Give the names of the funding agencies, project title and grants received project-wise.

- Mrs. Neha Jain a full time Ph. D. scholar of the department is working on a research project under the scheme WOS: A. Prof. Shishir Kumar is mentor for this project. This project proposal has been accepted by DST for financial support of ₹ 22.5 Lacs
- **Project Title :** “Design and Implementation of High Speed Efficient Real Time Detection of humans in Images and Videos of Natural Calamities”
 - Date of Acceptance : June 18,2015
 - Duration : 3 years
 - Fund Allocated : Not yet

18. Inter-institutional collaborative projects and associated grants received

a) National collaboration

b) International collaboration

The department has so far not received any grant formally for collaborative research. However, a good number of faculty members of other institutes as well as few industry professionals have worked/working with many faculty members of department for pursuing/supervising doctoral research. This collaboration has resulted in many Ph.D. theses at JUET and other universities as well as several publications.

I. National collaboration (without grants/funds)

| S. No | Faculty name | Research Collaborator affiliation | Research Area | Outcome of Collaboration |
|-------|------------------|---|---|---------------------------|
| 1 | Shishir Kumar | Satish Kumar Singh Indian Institute of Information Technology, Allahabad (UP) India | Security of Images | Publication-2 |
| 2 | Shishir Kumar | R. C. Chakraborty Formerly Director of DTRL and ISSA, DRDO. | Artificial Immune System | Thesis-1 |
| 3 | Vipin Tyagi | S. P. Gherera, JUIT, Wagnaghat | Image Processing | Publication-3 |
| 4 | Vipin Tyagi | *Centre of AI and Robotics, Bangalore | Image Processing | Not yet |
| 5 | Neeraj Rathore | Inderveer Chana Thapar University, Patiala, Punjab | Grid Computing | Publications-17 |
| 6 | Neeraj Rathore | Prof. Vishal Sharma, Thapar University, Patiala, Punjab | Grid Computing | Publications-1 |
| 7 | Ratnesh Litoriya | Abhay Kothari Jagdish Prasad Jhabarmal Tiberewala University, Jhunjhunu, Rajasthan | Software Cost Estimation and Project Management | Thesis-1 Publication-4 |
| 8 | P. S. Banerjee | Baisakhi Chakraborty, National Institute of Technology, Durgapur, West Bengal | Artificial Intelligence and Natural Language Processing | Publication-1 |
| 9 | P. S. Banerjee | G. Sahoo, Birla Institute of Technology, Mesra, Ranchi, Jharkhand, (India) | Soft Computing | Publication-1 |
| 10 | P. S. Banerjee | U.K Roy Jadavpur University, Kolkata, West Bengal (India) | Voice Processing | Publication-1 |

| | | | | |
|----|----------------------|--|--|---------------|
| 11 | Ravindra Kumar Singh | Narendra S. Chaudhari Director, Visvesvaraya National Institute of Technology (VNIT) Nagpur, Maharashtra, India | MPLS Networks | Publication-4 |
| 12 | Ravindra Kumar Singh | Kanak Saxena, Samrat Ashok Technological Institute, Vidisha, M.P. India | MPLS Networks | Publication-4 |
| 13 | Neelesh Kr Jain | Amit Mishra, Thapar University, Patiyala, India | Digital Image Forensics | Not yet |
| 14 | Ashish Gupta | M.A. Zaveri, S V NIT, Surat – 395007, Gujarat, India | Target Tracking in WSN | Publication-1 |
| 15 | Ashish Gupta | Shailaja C. Patil, Rajarshi Sahu College of Engineering, Pathwade, Pune - 411033, Maharashtra, India, | Target Tracking in WSN | Publication-1 |
| 16 | Amit Srivastava | Prof. A. K. Mishra MNNIT, Allahbad | Software Engineering, and Network Security | Publication-1 |

*MOU signed among JUET, JUIT, JIIT and CAIR for research.

II. International Collaborations (without grants/funds)

| S. No | Faculty name | Research Collaborator affiliation | Research Area | Outcome of Collaboration |
|-------|---------------|---|---|--------------------------|
| 1 | Shishir Kumar | Aniket Mahanti, University of Auckland, New Zealand | Computer networks and distributed systems | * |
| 2 | Shishir Kumar | Carsten Mueller Bulmannstr. 48, 90459 Nuremberg, Germany | Component Based Software Engineering | + |
| 3 | Vipin Tyagi | Jan Flusser, Director, UTIA, Czech Republic | Image Processing | Not yet |

*Invited Lectures for research scholars. Supporting in research work of a Ph.D. scholar.

+Taken an elective course for B.Tech. students. Supporting in research work of a Ph.D. scholar.

Details of collaborative publications are mentioned in Annexure-I/CSE.

19. Departmental projects funded by DST-FIST; UGC-SAP/CAS, DPE; DBT, ICSSR, AICTE, etc.; total grants received.

| S. No. | Name of Faculty | Name of Project | Sponsor | Date of Approval | Fund Allocated (₹ in lakh) | Duration |
|--------|-------------------|--|---------------------------|------------------|----------------------------|----------|
| 1 | Dr. Shishir Kumar | Security Enhancement of File System | DRDO, Govt, of India | July-2010 | 3.45 | 1 Year |
| 2 | Dr. Vipin Tyagi | A new approach for handwriting recognition using simple algorithms | Computer Society of India | July-2009 | 1 | 1 Year |
| 3 | Dr. Vipin Tyagi | Detection of Forgery in images stored in digital form | DRDO, Govt, of India | June-2009 | 3.5 | 1 Year |

20. Research facility / centre with

- State recognition : Not yet
- National recognition : Not yet
- International recognition: Not yet

21. Special research laboratories sponsored by / created by industry or corporate bodies

Not yet

22. Publications:

I. Summary Report

| Category | Year | | | | | | Total publications |
|---------------------------|------|------|------|------|------|------|--------------------|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | |
| International Journals | 14 | 13 | 15 | 14 | 24 | 12 | 92 |
| National Journals | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| International Conferences | 7 | 7 | 9 | 5 | 7 | 7 | 42 |
| National Conferences | 2 | 0 | 1 | 1 | 1 | 2 | 7 |

II. Other Publications

| Year | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | Total |
|---------------|------|------|------|------|------|------|-------|
| Books | 1 | 1 | 0 | 0 | 2 | 1 | 5 |
| Books Edited | 1 | 0 | 0 | 0 | 1 | 1 | 3 |
| Books Chapter | 5 | 0 | 0 | 1 | 3 | 6 | 15 |

III. Journals Indexed in SCOPUS/SCI/Others

| Category | SCOPUS | SCI | Others | Total |
|---------------|--------|-----|--------|-------|
| International | 39 | 26 | 53 | 92 |
| National | 0 | 0 | 0 | 0 |

IV. Citation Index:

| Indexing parameter | Details |
|----------------------------|---|
| Google Citations (Authors) | Total citations: 425 Range: 0 to 123 Average: 22.37 |
| SNIP | Range: 0 to 3.242 Average: 1.188 |
| SJR | Range: 0 to 3.286 Average: 0.634 |
| Impact Factor (SCI) | Range: 0 to 4.038 Average: 1.403 |
| h-index | Range: 0 to 103 Average: 27.34 |

Details of Publications are mentioned in Annexure-II/CSE.

23. Details of patents and income generated

Not yet

24. Areas of consultancy and income generated

Not yet

25. Faculty selected nationally / internationally to visit other laboratories / institutions / industries in India and abroad

Most of the faculty members (nearly 90%) of the department have visited laboratories, institutions, and industries in India and abroad. Details of faculty members visits in India and abroad mentioned in Annexure-III/CSE.

26. Faculty serving in a) National committees b) International committees c) Editorial Boards d) any other (please specify)

Around 70% faculty members of the department are members of various sub-committees for organization of various conferences/seminars/workshops, inside and outside the University. Some of the faculty members also on the reviewer board of various types of academic publications. Details of faculty members serving in various committees are mentioned in Annexure- IV/CSE.

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs).

To recharge the faculty members, department organizes workshop, seminars, expert talks, conferences, refresher courses, faculty development program etc. on regular basis, inside the University.

In addition, the faculty members are also participating in these activities outside the University.

The faculty recharging activities organized in the department are as follows:

Conference

- 17th Annual Conference of GAMS and National Symposium on Computational Mathematics & Information Technology, organized jointly with Department of Mathematics, during December 7-9, 2012.
- ConfER 2010 3rd CSI National Conference on Education & Research On “Impact of Globalization and Privatization on meeting India's IT Human Resource needs”, March 6-7, 2010.
- Annual Conference of Vijnana Parishad of India and National Symposium on Recent Developments in Applicable Mathematics & Information Technology, organized jointly with Department of Mathematics, December 4-6, 2009.
- Third National Conference on Applicable Mathematics in Wave Mechanics and Vibrations (WMVC-2006), October 15-17, 2006.

Workshop

- Workshop on Intelligent Approaches for Object Oriented Modeling in Component Based Software Engineering” (IAOOM-2015), May 07-09, 2015.
- National Workshop on Advancements In Network Communication & Security, December 29-31, 2014.
- International workshop on Intelligent Approaches for Object Oriented Modeling in Component Based Software Engineering, April 18-20, 2014.
- National Workshop on Advancements In Network Communication & Security, December 19-21, 2013.
- Indo-US Collaboration for Engineering Education (IUCEE) Workshop 2012 on Application Oriented Networking, July 9–13, 2012.
- IUCEE Workshop on Selected Topics on Distributed Systems and Computer Security, May 30 – June 3, 2011.
- Workshop on Java Androids & Web Technologies, December, 17-19, 2010.
- IUCEE Workshop on Computer System Performance Analysis, July 5-9, 2010.

28. Student projects

- Percentage of students who have done in-house projects including inter-departmental projects

| Batch | Total no. of Students | Percentage (in-house projects) |
|-----------|-----------------------|--------------------------------|
| 2006-2010 | 114 | 61 |
| 2007-2011 | 144 | 51 |
| 2008-2012 | 139 | 48 |
| 2009-2013 | 94 | 63 |
| 2010-2014 | 114 | 56 |
| 2011-2015 | 108 | 78 |

- Percentage of students doing projects in collaboration with other universities / Industry / institute

| Batch | Total no. of Students | Percentage of students doing projects outside University | |
|-----------|-----------------------|--|------------------|
| | | Industry | Other University |
| 2006-2010 | 114 | 38 | 1 |
| 2007-2011 | 144 | 49 | 1 |
| 2008-2012 | 139 | 48 | 4 |
| 2009-2013 | 94 | 29 | 7 |
| 2010-2014 | 114 | 42 | 2 |
| 2011-2015 | 108 | 20 | 2 |

29. Awards/recognitions received at the national and international level by

• **Faculty**

| Name of Faculty | National and international recognition |
|------------------------|--|
| Dr. Vipin Tyagi | <ul style="list-style-type: none"> • Elected vice-president (M.P, Rajasthan, Gujrat) of Computer Society of India. • President - Engineering Sciences- Indian Science Congress Association 2010-11. • Recorder - Engineering Sciences- Indian Science Congress Association 2008-10. • Indian National Science Academy nominated to Visit Czech Republic in the area of Digital Image Processing in 2010. |
| Harikesh Singh | <ul style="list-style-type: none"> • Fellowship for Training of Young Scientists of M. P. Council of Science and Technology in Computer Science Engineering and Information Technology discipline at the 28th M. P. Young Scientist Congress held at Vigyan Bhawan, Bhopal, M. P., during February 28- March 1, 2013. |
| Dinesh Kumar Verma | <ul style="list-style-type: none"> • Fellowship for Training of Young Scientists of M. P. Council of Science and Technology in Computer Science Engineering and Information Technology discipline at the 28th M. P. Young Scientist Congress held at Vigyan Bhawan, Bhopal, M. P., during February 28- March 1, 2013. |

• **Doctoral / post doctoral fellows**

| Name of Research Fellow | Detail of research award |
|--------------------------------|---|
| Saurabh Shrivastava | <ul style="list-style-type: none"> • Fellowship Training of Young Scientist of M.P. Council of Science & technology at 29th M.P. Young Scientist Congress held at Vigyan Bhawan, Bhopal, during February 28–March 1, 2014. |
| Paras Jain | <ul style="list-style-type: none"> • Paras Jain and Vipin Tyagi got best paper award “An adaptive edge preserving image denoising using block based singular value decomposition in wavelet domain” in International congress on Information and Communication Technology -ICICT 2015, held at Udaipur, during October 9-10, 2015. |

- **Students**

| Name of students | Detail of achievements |
|--|---|
| Utkarsh pandey (B.Tech student) | <ul style="list-style-type: none"> • Selected for Microsoft Student Partner for 2014-16 |
| Vishabh Chauhan, Kushwant Singh Chouhan, Yamini Gupta, and Vishal Mishra (B.Tech students) | <ul style="list-style-type: none"> • Selected for Microsoft Student Associates 2014-16 |
| Priyam Srivastava (B.Tech student) | <ul style="list-style-type: none"> • Selected for the Firefox Student Ambassadors 2014-16 |
| Pulkit Sharma (B.Tech student) | <ul style="list-style-type: none"> • Selected for the Hackerearth Student Ambassador, 2014-16. |
| Prashant Agrawal (B.Tech student) | <ul style="list-style-type: none"> • Selected by GOOGLE as the Google Student Ambassador to represent Jaypee University of Engineering & Technology for academic year 2013-14. |
| Yash Raj Singh (B.Tech student) | <ul style="list-style-type: none"> • Won the student scholarship for GOPHERCON India 2014. • Ranked in Top 10 Apps developers in National event of Google Cloud Developer Challenge, December 2013. • Finalist in Google cloud developer's challenge 2013. |
| Prashant Agrarwal (B.Tech student) | <ul style="list-style-type: none"> • Selected for the Google for Education: Student Ambassador Program, 2013-14. |
| Keshav Goel (B.Tech student) | <ul style="list-style-type: none"> • Selected for Microsoft Student Partner for 2013-14 |
| Harshit Sharma | <ul style="list-style-type: none"> • Selected for the Firefox Student Ambassadors 2012-14 |
| Shivam Rana, Anmol Arora and Shivam Singh (B. Tech students) | <ul style="list-style-type: none"> • Cleared the 1st round in onsite event of ACM ICPC held at IIT Kanpur, during December 12-13, 2012. |
| AKhil Garg (B.Tech student) | <ul style="list-style-type: none"> • Selected for the Microsoft Student Partner Program for 2010-10. |

30. Seminars/Conferences/Workshops organized and the source of funding (national / International) with details of outstanding participants, if any.

| S. No. | Details |
|-------------------|--|
| Conference | |
| 1. | <p>17th Annual Conference of GAMS and National Symposium on Computational Mathematics & Information Technology organized in collaboration with Department of Mathematics, December 7-9, 2012</p> <p>Funding Agencies: JUET, DBT, NBEHM, CSIR, and DST.</p> |
| 2. | <p>ConfER 2010 3rd CSI National Conference on Education & Research on Impact of Globalization and Privatization on meeting India's IT Human Resource needs, March 6-7, 2010.</p> <p>Funding Agencies: JUET, Computer Society of India , Div. V, Region-III, Bhopal Chapter, MP Council of Science and Technology, Bhopal, IEEE MP subsection of Bombay Section</p> |
| 3. | <p>Annual Conference of Vijnana Parishad of India National Symposium on Recent Developments in Applicable Mathematics & Information Technology (in collaboration with Department of Mathematics), December 4-6, 2009.</p> <p>Funding Agencies: JUET, DST, CSIR</p> |
| 4. | <p>Third National Conference On Applicable Mathematics in Wave Mechanics and Vibrations (WMVC-2006) October 15-17, 2006</p> <p>Funding Agencies: JUET and CSIR</p> |
| Workshop | |
| 1. | <p>Workshop on Intelligent Approaches for Object Oriented Modeling in Component Based Software Engineering (IAOOM-2015) May 07-09, 2015.</p> <p>Funding Agencies: JUET and Computer Society of India (CSI)</p> |
| 2. | <p>National Workshop On Advancements In Network Communication & Security, December 29-31, 2014.</p> <p>Funding Agencies: JUET, MPCST, and Computer Society of India</p> |

| | |
|----|---|
| 3. | International workshop on Intelligent Approaches for Object Oriented Modeling in Component Based Software Engineering, April 18-20, 2014. Funding Agencies: JUET and Computer Society of India |
| 4. | National Workshop On Advancements In Network Communication & Security, December 19-21, 2013. Funding Agencies: JUET, DRDO, CSI, and MPCST |
| 5. | IUCEE Workshop 2012 on Application Oriented Networking, July 9–13, 2012. Funding Agencies: JUET and IUCEE |
| 6. | IUCEE Workshop 2011 on Selected Topics on Distributed Systems and Computer Security, May 30 – June 3, 2011. Funding Agencies: JUET and IUCEE |
| 7. | Workshop on Java Andorids & Web Technologies, December 17-19, 2010. Funding Agencies: JUET, CSI |
| 8. | IUCEE Workshop on Computer System Performance Analysis, July 5-9, 2010. Funding Agencies: JUET and IUCEE |

31. Code of ethics for research followed by the departments

The Department follows the University code of research ethics. In addition, the faculty members and research scholars are advised to follow IEEE/ACM code of ethics.

32. Student profile programme-wise:

| Name of the Program (refer to question no. 4) | Applications received * | Selected | | Pass percentage - [Nos. (%)] | |
|--|----------------------------|----------|-------|------------------------------|-----------|
| | | Male | Femal | Male | Female |
| B.Tech. | | | | | |
| 2006-2010 | ***** | 103 | 17 | 97(94.17) | 17(100) |
| 2007-2011 | 22229 | 134 | 21 | 123(91.79) | 21(100) |
| 2008-2012 | 32017 | 123 | 20 | 119(96.74) | 19(95.00) |
| 2009-2013 | 31210 | 72 | 31 | 61(84.72) | 31(100) |
| 2010-2014 | 26150 | 84 | 41 | 73(86.9) | 41(100) |
| 2011-2015 | ***** | 72 | 40 | 67(93.06) | 40(100) |

| M.Tech. | | | | | |
|----------------|----|----|----|--------------------|-------------|
| 2010-2012 | 29 | 15 | 10 | 15(100) | 10(100) |
| 2011-2013 | 15 | 10 | 15 | 10(100) | 5(100) |
| 2012-2014 | 16 | 7 | 9 | 7(100) | 8(88.89) |
| 2013-2015 | 14 | 8 | 6 | 8(100) | 5(83.33) |
| Ph. D. | | | | | |
| Up to 2015 | 44 | 19 | 5 | Nos. awarded: | 9(9M,0F) |
| | | | | Nos. Continuing: | 15(10M, 5F) |
| | | | | Nos. Discontinued: | Nil |

*Total number of applications received in the University for Admission.

33. Diversity of students

| Name of the Programme | Total | % of students from the same University | % of students from other universities within the State | % of students from universities outside the State | % of students from other countries |
|-----------------------|-------|--|--|---|------------------------------------|
| B.Tech. | | | | | |
| 2010 | 122 | NA | 31.97 | 68.07 | Nil |
| 2011 | 110 | NA | 20.91 | 79.09 | Nil |
| 2012 | 181 | NA | 33.15 | 66.85 | Nil |
| 2013 | 162 | NA | 24.07 | 75.93 | Nil |
| 2014 | 213 | NA | 43.19 | 56.81 | Nil |
| 2015 | 253 | NA | 38.34 | 61.66 | Nil |
| M.Tech. | | | | | |
| 2010 | 24 | Nil | 75 | 25 | Nil |
| 2011 | 15 | 7 | 73 | 20 | Nil |
| 2012 | 16 | Nil | 69 | 31 | Nil |
| 2013 | 13 | 8 | 62 | 31 | Nil |
| 2014 | 6 | Nil | 83 | 17 | Nil |
| 2015 | 5 | Nil | 60 | 40 | Nil |

| Ph. D. | | | | | |
|---------------|---|-----|-----|-----|-----|
| 2010 | 3 | 100 | Nil | Nil | Nil |
| 2011 | 5 | 20 | 80 | Nil | Nil |
| 2012 | 2 | 50 | 50 | Nil | Nil |
| 2013 | 4 | 75 | Nil | 25 | Nil |
| 2014 | 4 | 50 | 50 | Nil | Nil |
| 2015 | 4 | 25 | 25 | 50 | Nil |

34. How many students have cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give details category-wise.

GRE: More than 50 (batches who appeared in these exams in last 5 years).

CAT/MAT/XAT/GMAT: More than 70 (batches who appeared in these exams in last 5 years).

GATE: More than 25.

Civil Services, Defense Services, Central Govt., and PSU Examinations: approximate 4.

35. Student progression

| Student progression | Percentage against enrolled |
|---------------------------------|------------------------------------|
| UG to PG | 8-10% |
| PG to M.Phil. | Nil |
| PG to Ph.D. | Around 10% |
| Ph.D. to Post-Doctoral | Nil |
| Employed | 85.73% |
| • Campus selection | |
| • Other than campus recruitment | 4-6% |
| Entrepreneurs | 0.5% |

36. Diversity of staff

For Ph. D., percentage is calculated out of total Ph.D. degree holders and percentage of UG and PG is calculated out of total strength of the Department.

| Percentage of faculty who are graduates | PG | Ph. D. |
|--|---------|--------|
| of the same University | Nil | 50% |
| from other universities within the State | 31.58 % | Nil |
| from universities from other States | 68.42% | 50% |
| from universities outside the country | Nil | Nil |

37. Number of faculty who were awarded M.Phil., Ph.D., D.Sc. and D.Litt. during the assessment period

- Nine faculty members have been awarded Ph.D.degree.
- The details of the faculty members who have been awarded Ph.D. are as mentioned blow

| S. No. | Name of Faculty | Area of Research | Year of Degree awarded | University |
|--------|--------------------|---|------------------------|---|
| 1 | Dr. Kamlesh Gupta | Design and Analysis of efficient Algorithm for Fast Cost Effective and Secured Image Transmission | 2013 | Rajiv Gandhi Proudयोगiki Vishwavidyalaya , Bhopal |
| 2 | Dr. Vishnu Sharma | Design and Development of an Agent Based Congestion Control Approach for Mobile Ad-hoc Network | 2013 | Rajiv Gandhi Proudयोगiki Vishwavidyalaya , Bhopal |
| 3. | Dr. Mahesh Kumar | Improved and Unswerving Routing to Corroborate Internet Growth | 2013 | JUET, Guna |
| 4 | Dr. U. S. Rawat | Secure And Efficient Distributed Cryptographic File Systems | 2013 | JUET, Guna |
| 5 | Dr. Neeraj Rathore | An Efficient load balancing technique in grid environment | 2014 | Thapar University, Patiyala |

| | | | | |
|---|----------------------|---|------|--|
| 6 | Dr. Harikesh Singh | Analysis And Design Of Effective Strategies For Dynamic Load Balancing On Web Servers | 2015 | JUET, Guna |
| 7 | Dr. Amit Rathi | Design and Implementation of Artificial Immune System for Security Of Computers | 2015 | JUET, Guna |
| 8 | Dr. Prateek Pandey | Forecasting in Data Pauperism | 2015 | JUET, Guna |
| 9 | Dr. Ratnesh Litoriya | Existing software estimation models: validation and improvements for Web Based projects | 2015 | Shri Jagdishrashad Jhabarmal Tibrewala University, Jhunjhunu |

38. Present details of departmental infrastructural facilities with regard to

- a) **Library:** Department uses the facility of Learning Resource Centre (LRC) available centrally. In addition to this a Departmental Library is also available.
- b) **Internet facilities for staff and students:** JUET campus is fully connected through LAN/ Wi-Fi arrangement consisting of around 3500 node. Internet facility is available 24 X 7 on all these nodes through 1Gbps leased line. On this network 855 Desktop Systems are made available to faculty members and staff members. Other nodes are available for connections of personal computing devices by faculty members/staff/students.
- c) **Total number of class rooms:** 13 Lecture Theatres and 30 Class Rooms/Tutorial rooms of the University are shared with other departments.
- d) **Class rooms with ICT facility:** 13 Lecture Theater and 6 Class Rooms with ICT facility are with other departments. The detail information is mentioned in Section 4.3.7.

*Details mentioned at point b),c) &d) is available centrally at University level which is being shared by other departments also.

e) **Students' laboratories:**

Laboratory Details

| Laboratory Name | Location | LAN | PC | Power backup | Capacity | E-Display Board | White Board |
|------------------------|------------------|------------|-----------|---------------------|-----------------|------------------------|--------------------|
| Computer Lab-1 | Ramanujam Bhavan | Y | Y | Y | 61 | N | Y |
| Computer Lab-2 | Ramanujam Bhavan | Y | Y | Y | 38 | N | Y |
| Computer Lab-3 | Ramanujam Bhavan | Y | Y | Y | 74 | N | Y |
| Computer Lab-4 | Ramanujam Bhavan | Y | Y | Y | 70 | Y | Y |
| Computer Lab-5 | Ramanujam Bhavan | Y | Y | Y | 64 | N | Y |

f) **Research laboratories:**

In addition to 2 Servers, department has 324 PCs and state of the art IT-infrastructure for research. The hardware devices and software are used for both teaching as well as research activities.

39. List of doctoral, post-doctoral students and Research Associates

I. From the host institutions/universities

• **Doctoral Degree (Awarded)**

1. Dr. Satish Singh
2. Dr. Mahesh Kumar
3. Dr. Uma Shankar Rawat
4. Dr. Nishant Shrivastava
5. Dr. Sourabh Shrivastava
6. Dr. Harikesh Singh
7. Dr. Amit Kumar
8. Dr. Prateek Pandey
9. Dr. Paras Jain

- **Doctoral Degree (Pursuing)**
 1. Mr. Ajay Kumar
 2. Mr. Dinesh Kumar Verma
 3. Mr. Nileshkumar R. Patel
 4. Mr. Lal Pratap Verma
 5. Mr. Varun Sharma
 6. Mr. Neelesh Kumar Jain
 7. Mrs. Deepshikha Tiwari
 8. Mr. Ghanshyam Raghuwanshi
 9. Mrs. Shriptra Shukla
 10. Mr. Vinay Kumar Jain
 11. Mr. Amit Kumar Shrivastava
 12. Mrs. Neha Jain
 13. Mrs. Anju Shukla
 14. Mr. Sukumal Jain
 15. Ms. Mamta Pandey

II. From other institutions/universities

- **Doctoral Degree (Awarded)**
 1. Dr. Kamlesh Gupta
 2. Dr. Vishnu Sharma
 3. Dr. Neeraj Rathore
 4. Dr. Ratnesh Litoriya
- **Doctoral Degree (Pursuing)**
 1. Mr. Ravindra Kumar Singh
 2. Mr. Partha Sarathi Banerjee

40. Number of post graduate students getting financial assistance from the university.

- The details of number of Ph. D./ M.Tech. students getting financial assistance from the University are as follows

| Year | Program | Semester | No. of students | Total Students |
|-----------|----------|----------|-----------------|----------------|
| 2010-2011 | M. Tech. | Odd | 8 | 18 |
| | | Even | 10 | |
| 2011-2012 | M. Tech. | Odd | 13 | 35 |
| | | Even | 16 | |
| | Ph. D. | Odd | 4 | |
| | | Even | 2 | |
| 2012-2013 | M. Tech. | Odd | 10 | 27 |
| | | Even | 11 | |
| | Ph. D. | Odd | 3 | |
| | | Even | 3 | |
| 2013-2014 | M. Tech. | Odd | 9 | 26 |
| | | Even | 7 | |
| | Ph. D. | Odd | 5 | |
| | | Even | 5 | |
| 2014-2015 | M. Tech. | Odd | 4 | 20 |
| | | Even | 4 | |
| | Ph. D. | Odd | 7 | |
| | | Even | 5 | |
| 2015-2016 | M. Tech. | Odd | 2 | 11 |
| | Ph. D. | | 9 | |

41. Was any need assessment exercise undertaken before the development of new programme(s)? If so, highlight the methodology.

The emerging trends in industry, research, government policies, computing education, recommendations of the professional bodies, and JUET management's directives motivate and guide the department to design new programs. International and nationally renowned academicians from many leading institutes and industry professionals are consulted while conceptualizing and designing new programs or revising the curricula of existing programs. The latest recommendations of professional bodies, especially CSI, ACM and IEEE, and also the recent curriculum trends in leading international and Indian universities are given due considerations in designing and revising our curriculum. All the faculty members are requested to give their suggestions and finally the meeting of the board of studies including external experts is held for reviewing the curriculum. For example, following external experts have provided their suggestions and feedback for the ongoing curriculum exercise for designing new curriculum for B.Tech./M.Tech. (CSE) programs:

- Prof. R. C. Chakraborty, Former Director of DTRL and ISSA, DRDO.
- Dr. Sanjai Gupta, BIET, Jhansi.
- Dr. Carsten Mueller, University of Economics, Faculty of Informatics and Statistics, Prague.
- Dr. Aniket Mahanty, University of Auckland, Auckland, New Zealand.
- Dr. Deepak Singh Tomar, MANIT Bhopal
- Mr. Timaniya Naresh, Phenix Lab, Ahmedabad.
- Prof. M.C. Govil, NIT, Jaipur
- Prof. P.K. Singh, IIITM, Gwalior
- Prof. Suneeta Agrawal, MANIT Allahabad.
- Prof. Raj Jain, Washington University, St. Louis (USA)
- Prof. Pratha Dasgupta, Arizona State University (USA)
- Prof. Laxmi N. Bhuyan, Computer Science and Engineering, University of California, Riverside.

42. Does the department obtain feedback from

a. Faculty on curriculum as well as teaching-learning-evaluation? If yes, how does the department utilize the feedback?

Yes, the feedback is taken through regular discussions, course work files, meetings and emails.

b. Students on staff, curriculum and teaching-learning-evaluation and how does the department utilize the feedback?

The feedback from the students is taken at the end of each semester for each course separately. Outcome of these feedbacks are considered for enhancement of curriculum and teaching-learning methodologies. Special remarks are also conveyed to the concern faculty member for corrective actions.

c. Alumni and employers on the programmes offered and how does the department utilize the feedback?

The department keeps a regular contact with the alumni. A large number of alumni, students and faculty members are connected with each other through social media. Department manages two social media groups “PARAMARSH & SAMVAD” for active interaction with alumni. The faculty members also meet the recruiters to get their feedback on students’ performance. Most of the time, this interaction held directly. Their feedback helps us in formulating and evolving our corrective strategies. The impact of our response to such feedback can be gauged from the fact that over the years, gradually the number of our students getting selected for high quality technical jobs has increased significantly.

43. List the distinguished alumni of the department (maximum 10)

| S. No. | Year of Passing from JUET, Achievements and current affiliations |
|---------------|--|
| 1 | Prachi Ailawadhi, 2011 Cleared the Indian Civil Services (2014 batch) , All India Rank 542 |
| 2 | Shivakar Singh, 2007 Chief Executive Officer, IryTech Pvt Ltd, New Delhi |
| 3 | Jaskirat Singh, 2009 Law enforcement and Public relation office, Manitoba Government, Canada |
| 4 | Shrey Sangal, 2010 Software Engineer at Microsoft, Seattle, Washington |
| 5 | Rishabh Agarwal, 2011 Technical support lead, VMware, Cambridge, Massachusetts |
| 6 | Prabhat Kumar , 2007 Senior SDET, Amdocs, Bothell, Washington |
| 7 | Ankit Dev, 2010 Solution Architect, Standard Chartered Bank, Singapore |
| 8 | Vivek Gupta, 2008 Sr. Director of Engineering at Perk.com |
| 9 | Tanmay Garg, 2013 Development Engineer , CommVault Systems,Long Branch, New Jersey |
| 10 | Arjun Mullick, 2011 SSE, Amazon.com, New York, USA |

44. Give details of student enrichment programmes (special lectures / workshops /seminar) involving external experts.

Following are the details of workshop organized in the department in which the student participated and benefited by external expert:

- Workshop on Intelligent Approaches for Object Oriented Modeling in Component Based Software Engineering” (IAOOM-2015) May 07-09, 2015.
External Expert: Dr. Carsten Mueller, University of Economics, Faculty of Informatics and Statistics, Prague.
- National Workshop on Advancements In Network Communication & Security December 29-31, 2014.
External Experts: Dr. Nikhil Kothari (DDU Nadiad) and Dr. D. S. Tomar (MANIT, Bhopal)
- International workshop on Intelligent Approaches for Object Oriented Modeling in Component Based Software Engineering, April 18-20, 2014.
External Expert: Dr. Carsten Mueller, University of Economics, Faculty of Informatics and Statistics, Prague.
- National Workshop on Advancements In Network Communication & Security December 19-21, 2013.
External Experts: Dr. D. S. Tomar (MANIT, Bhopal) and Mr. Prashant Pandey (STMicroelectronics, Gr. Noida)
- Workshop on Java Androids & Web Technologies December 17-19, 2010.
External Experts: Mr. Timaniya Naresh (Phenix Lab,Ahmedabad) and Mr. Panka Pandey (SDO, BSNL, Guna)

In addition with these workshops, student Branch of Computer Society of India (at JUET) has also organized various events throughout all the academic sessions.

45. List the teaching methods adopted by the faculty for different programmes.

- Interactive lectures using various aids e.g., Black/White board, computer presentation, Visualizer, etc.
- Small group tutorials and Assignments
- Laboratories
- Project based learning through mini, minor and major Projects

- Industrial internship
- Use of online educational resources as supplements
- Participation in Conference, Guest lectures, and industry conducted workshops
- Collaborative Teaching and Learning
- Cross-level peer mentoring
- Partially Flipped Classroom and Guided Reading
- Report writing and Seminars
- Technical competitions and large group Hackathons
- 24x7 academic connectivity of faculty members with class using social media and other web services
- Regular organization of various technical events related to programming, robotics, multimedia, game design, web design, etc.

46. How does the department ensure that programme objectives are constantly met and learning outcomes are monitored?

The department continuously monitors and ensures that programme objectives are met and learning outcomes are achieved through following methods:

- I. Continuous evaluation of students' progress through their performance in
 - a. Written exams
 - b. Assignments
 - c. Projects
 - d. Presentations
 - e. Reports
- II. Feedback from the recruiters and employers on students' performance help us in formulating and evolving our corrective strategies. Most of the time this interaction held directly by our faculty members.
- III. Feedback from the alumni

The achievements of the programme objectives are reflected through the following:

- a. Performance in internal as well as external competitions including online ranking.
- b. Acceptance of students in higher education programs at world's top universities including IITs and IIMs.

- c. Acceptance of M.Tech. students as Ph.D. scholars and/or as faculty members at IIT, NIT, and Top University in India and abroad.
- d. A good number of publications with students as co-authors.
- e. Acceptance of students in top quality technical companies, e.g., Microsoft, Google, facebook, Twitter, Amazon, SAP labs, etc., demanding very high level of technical competence.
- f. Nearly 100% placement with multiple offers to a large number of students.
- g. Acceptance of M.Tech. and B.Tech. students as short duration interns at various companies.

47. Highlight the participation of students and faculty in extension activities.

Faculty members and students of the department are actively involved in various extension activities organized by JUET. Details are mentioned in section 3.6 of Self Study Report of the University.

48. Give details of “beyond syllabus scholarly activities” of the department.

- Conducting conferences, workshops, seminars, and Faculty Development Programs.
 - Conducting expert lectures in various emerging areas.
 - Participation of the faculty members in conferences/workshops/seminars etc.
 - Organization of several technical events for students
 - Helping students in arranging internships, especially for M.Tech. students.
- Details are mentioned in Section 30 of this document.

49. State whether the programme/ department is accredited/ graded by other agencies? If yes, give details.

Not yet

50. Briefly highlight the contributions of the department in generating new knowledge, basic or applied.

The department has contributed for creation of new knowledge by developing new techniques in the followings:

- Image compression using optimum color space with sub-band decomposition.
- Improved and unswerving routing to corroborate Internet growth.
- Distributed cryptographic file systems.
- Content based image retrieval system.
- Soybean Disease administration using Image processing
- Dynamic load balancing on web servers.
- Artificial immune system for security of computers.
- Forecasting in data pauperism.

The above contribution is reflected in the publications and theses produced by the department as below:

| S. No. | Name of event | Total |
|--------|----------------|-------|
| 1. | Research Paper | 91 |
| 2. | Book Chapters | 15 |
| 3. | Books Edited | 3 |
| 4. | Books | 5 |

The details are mentioned in the Annexure-II/CSE

51. Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.

Strengths:

- Highly motivated, and well qualified faculty actively engaged in Research Activities.
- Encouraging trends of students applying for different courses and increasing student strength over the years.
- Organizing Workshops and Seminars.
- Department has the up-to-date computing facilities to support the teaching & research activities.
- Faculty members are always approachable to students.
- Good Infrastructure on par with leading institutes.

Weaknesses:

- Need for greater interaction with industry.
- Number of Post graduate students is less as compared to undergraduate students.
- More focus on interdisciplinary research may be given.
- Limited number of scholarship available for research.
- Limited international employment opportunities.

Opportunities:

- Provide better opportunities for our faculty members and students to engage in professional consultancy services to the industries and government sectors.
- By 2020, India will have one of the youngest populations in the world, with an average age of 29 years. Department has the opportunity to serve as a center of producing highly IT skilled human resources.
- Department has the opportunity to embrace ICT to solve problems in context of remote and rural places India.
- Grow as a highly respected research based department that has around 50% faculty members with Ph.D., participation of visiting and adjunct professors, around 25 full time Ph.D. scholars.
- Department can offer many interdisciplinary postdoctoral research opportunities in collaboration with other interested sister departments.

Challenges:

- Making the department centre of excellence.
- Creating the capacity to meet the rising demand of skilled IT professionals.
- Providing educational opportunities to all, regardless of social position, economic ability and geography.
- Generating funds for undertaking high quality world-changing research, funding a large number of full time Ph.D. scholars and post doctoral fellows, and also for incubating few start-ups every year.
- Motivating the faculty members to synergize their energy to commit to work on large scale collaborative and world-changing research projects involving several faculty members.

52. Future plans of the department.

- Provide better opportunities for our faculty and students to engage in professional consultancy services to the government sectors.
- To promote inter disciplinary research.
- Collaboration with more Foreign Universities
 - Involve student in more practical challenges i.e. solving some real world problem as currently it is limited to pseudo-challenges being organized at technical fest in majority of Indian colleges.

List of Collaborative Publications

International Journals

2015

1. Vishal Sharma, Rajesh Kumar and Neeraj Kumar Rathore, "Topological Broadcasting Using Parameter Sensitivity Based Logical Proximity Graphs in Coordinated Ground-Flying Ad Hoc Networks", Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications, Vol. 6, No. 3, September 2015.
2. N Rathore and I Chana, "Variable Threshold Based Hierarchical Load Balancing Technique in Grid", Engineering with computers, Springer publication-London (England (UK), Page 597-615, ISSN: 0177-0667 (print version) ISSN: 1435-5663 (electronic version), Volume 31, Issue 3, June 2015.

2014

3. Shailaja Patil, Ashish Gupta and Mukesh Zaveri, "Recovery of Lost Target Using Target Tracking in Event Driven Clustered Wireless Sensor Network," Journal of Computer Networks and Communications, vol.2014, pp.1-15, December 2014.
4. N Rathore and I Chana, "Load Balancing and Job Migration Techniques in Grid : A Survey of Recent Trends", Wireless Personal Communication, Springer Publication-New-York (USA), ISSN print 0929-6212, ISSN online 1572-834X, Vol-79(3), Page 2089-2125, IF - 0.979, July 2014.
5. N Rathore and I Chana, "Job migration with fault tolerance based QoS scheduling using hash table functionality in Social Grid Computing", Journal of Intelligent & Fuzzy Systems, IOS Press publication-Netherland, vol-27(6), pp no.- 2821–2833, ISSN print 1064-1246, IF- 0.936, June 2014.
6. Nitin Deepak , Shishir Kumar, "Perceptions on Risk Management Strategies in Software Development", International Journal of System and Software Engineering, Vol. 2, Issue 1, pp.20-27, June 2014 .
7. D. Ansari, S. P. Ghrera, Vipin Tyagi, Pixel based Image Forgery Detection, IETE Journal of Education, Taylor and Francis, 55(1), 2014, pp. 40-46 DOI: 10.1080/09747338.2014.921415.

8. A Kumar, S P Ghrera, Vipin Tyagi, Implementation of Wavelet Based Modified Buyer-Seller Watermarking Protocol (BSWP), WSEAS Transactions on Signal Processing, 10, pp. 212-220, 2014.

2013

9. Ravindra Kumar Singh, Narendra S. Chaudhari, KanakSaxena, "Probabilistic Selection of QoS Paths for Improving Survivability in MPLS Networks," Communications and Network, Vol. 5 No. 4, , pp. 328-336. doi: 10.4236/cn.2013.54041, 20th November 2013.
10. Neeraj Kumar Rathore and Inderveer Chana, "Report on Hierarchal Load Balancing Technique in Grid Environment", International journal of scientific and innovative technology, i-manager's Journal on Information Technology, Vol. 2, No. 4, ISSN Print: 2277-5110 , ISSN Online: 2277-5250, pp-21-35, November 2013.
11. Banerjee P.S., Uttam Kumar Roy, Paper titled "Modified PSOLA-Genetic Algorithm based approach for Voice Re-Construction", Journal of Information Technology, Publishing India Group, Volume 2: Issue 4, pp 1 – 9, November 2013.
12. Babita Tiwari ,Tanuj Tyagi, Akhil Saxena, Sunil Nishad, "Lexical and Parser tool for CBOOP program",IOSR Journal of Computer Engineering(IOSR-JCE), Volume 10,Issue 6, PP 30-34 , June 2013.

2012

13. Niyati Aggarwal, Amit Kumar, Harsh Khatter and Vaishali Aggarwal, "Analysis the Effect of Data Mining Techniques on Database", Elsevier's Advances in Engineering Software, Vol. 47(1), pp. 164-169, May 2012.
14. Nitin Rakesh and Vipin Tyagi , "Failure Detection using Contour approach on Network Coded Parallel Networks", Procedia Engineering, Elsevier, Vol. 38, pp. 763-770, 2012.
15. R. Kumar Singh, N. S. Chaudhari and K. Saxena, "Load Balancing in IP/MPLS Networks: A Survey," Communications and Network, Vol. 4 No. 2 , pp. 151-156. doi: 10.4236/cn.2012.42020, 18th May 2012
16. Nitin Rakesh and Vipin Tyagi, Parallel Architecture Coding: Link Failure-Recovery Mechanism (PAC: LF-RM)", International Journal of Systems Assurance Engineering and Management, Springer, pp. 1-11, 2012.

2011

17. Nitin Rakesh and Vipin Tyagi, Linear-code Multicast on Parallel Architectures, Elsevier Journal on Advances in Engineering Software, Vol 42, No.12, pp. 1074-1088, 2011.
18. Nitin Rakesh and Vipin Tyagi , Linear Network Coding on Multi-Mesh of Trees using All to All Broadcast, International Journal of Computer Science, Vol 8, no. 3, pp.462-471, 2011.
19. Ratnesh Litoriya and Anshu Ranjan “Relational Algebra Interpreter in Context of Query Languages” International Journal of Computer Theory and Engineering, Vol.3, No.1, pp-1793-8201, February 2011
20. Nitin Rakesh and Vipin Tyagi, Minimizing the Switch and Link Conflicts in an Optical Multi-stage Interconnection Network, Intl. Journal of Computer Science Reviews, Vol. 8(4), No. 1, pp. 206-214, 2011.
21. J. H. Agarwal, Vipin Tyagi, Telecommunications’ Journey from Past (Smoke Signals, Drum Beats) to Present (Internet, Telemetry), and the Way Ahead – 2010 and Beyond”, Indian Journal of Science Communication (DST), Vol. 10, no. 1, pp 12-17, 2011.

2010

22. Sarika Sharma, Vipin Tyagi and D.P.Goel , e-learning Challenges: Are We Ready?, Indian Science cruiser, Vol. 24, no. 4, pp.57-61, August 2010.
23. Neeraj Kumar Rathore and Inderveer Chana, “Checkpointing Algorithm in Alchemi.NET”, Pragmaan: Journal of Information Technology, IMS Dehradun. ISSN No.: 0974-5513, IEEE, CSI and MPCET, Volume 8: Issue 1, pp no. 32-38, Dehradun, June 2010.
24. Shishir Kumar , Priyank Singh, Vivek Kumar, “ Architecture for Mobile based Face Detection / Recognition System”, International Journal of Computer Science & Engineering , Vol.12 (3) , pp 889-894 , May 2010.

International conference

1. Banerjee P.S., Sahoo Gadadhar, “Fluctuating Pattern Size Handling for The Extracted Base Verb Forms From Participles and Tenses for Intelligent NLP”, Published in proceedings of the International Conference On Emerging ICT For Bridging Future (CSI 2014), JNTU, Hyderabad, Andhra Pradesh, India, , Advances in Intelligent Systems and Computing, Springer International Publishing, vol. 338, Springer AISC Series, pp.405–414, 12-14 December 2014.

2. Neeraj Kumar Rathore and Inderveer Chana, "A Sender Initiate Based Hierarchical Load Balancing Technique for Grid Using Variable Threshold Value" in International conference IEEE-ISPC, ISBN- 978-1-4673-6188-0, pp.1-6, 26-28 September 2013.
3. Ravindra Kumar Singh, Narendra S. Chaudhari, "Integrated Load Balancing Approach for Fault Tolerance in MPLS Networks", IEEE International Conference on Communication Systems and Network Technologies (CSNT), Gwalior, India, pp. 295-298, 6-8 April 2013, 2013, ISBN 978-1-4673-5603-9.
4. Ravindra Kumar Singh, Narendra S. Chaudhari, KanakSaxena, "Enhanced traffic aware LSP selection method in MPLS networks", Ninth IEEE International Conference on Wireless and Optical Communications Networks (WOCN), Indore, India, pp. 1-4, 20-22 September 2012, ISBN 978-1-4673-1988-1.
5. Ratnesh Litoriya, Narendra Sharma and Abhay Kothari "Incorporating Cost driver substitution to improve the effort using Agile COCOMO II", CSI Sixth International Conference on Software Engineering (CONSEG), technically sponsored by IEEE, pp. 1-7 , September 05-07, 2012. (ISBN: 978-1-4673-2175-4)
6. Amit Kumar Srivastava and A.K. Misra,"Plugging DHCP security holes using S-DHCP", Fifth International Conference on Network Security & Applications (CNSA2012),LNCS Springer, July,2012, ISBN:978-3-642-31513-8
7. Nitin Rakesh and Vipin Tyagi, "Failure Detection Using Contour Approach on Network Coded Parallel Networks", International Conference on Modelling, Optimisation And Computing (ICMOC–2012), , NICHE, Kumarakoil, Tamil Nadu, India, April 10-11, 2012.
8. Nitin Rakesh and Vipin Tyagi, "Failure Recovery in XOR'ed Networks", 2012 IEEE International Conference on Signal Processing, computing and control, JUIT, Wagnaghat, India. DOI: 10.1109/ISPC.2012.6224359, March 2012.
9. Nitin Rakesh and Vipin Tyagi, "Failure Repair Approach for Multiple Source Parallel Networks", 2012 IEEE International Conference on Computing, Communication And Applications, , PSNA College of Engineering and Technology, Dindigul, Tamilnadu, India. February 2012
10. Neeraj Kumar Rathore and Inderveer Chana, "A Cogitative Analysis of Load Balancing Technique with job migration in Grid Environment", World Congress on Information and Communication Technology (WICT), Mumbai, IEEE proceedings paper, ISBN -978-1-4673-0127-5 pp- 77-82, December 2011.

11. Nitin Rakesh and Vipin Tyagi, "Efficient Broadcasting in Parallel Networks Using Network Coding", PDCTA-2011, CCIS 203, pp. 484–494, 2011, Springer-Verlag Berlin Heidelberg 2011, Manonmaniam Sundharanar University, Tirunelveli, TN, India. DOI: 10.1007/978-3-642-24037-9_48
12. Vipin Tyagi, "Ethics in Education and Research", Presidential Address, 98th Indian Science Congress, Chennai, pp. 3-21, January 3-07, 2011
13. Singh Bhadauria, S. , Sharma, V. and Litoriya, R, " Empirical analysis of Ethical issues in the era of future information technology", 2nd International Conference on Software Technology and Engineering (ICSTE) organized by IACSIT and included in IEEE Explore, pp. V2-31-V2-35, Puerto Ricoh USA, October 3-5 2010, ISBN: 978-1-4244-8667-0.
14. Soner, S.,Jain, A., Tripathi, A. and Litoriya, R., " A novel approach to calculate the severity and priority of bugs in software projects", The International Conference on Education Technology and Computer (ICETC 2010), Organizing by IACSIT & IEEE Society and included in IEEE Explore, pp. V2-50-V2-54, Shanghai, China, June 22 - 24, 2010, ISBN: 978-1-4244-6367-1.
15. Ratnesh Litoriya and Anshu Ranjan " Implementation of Relational Algebra Interpreter using another query language ", International Conference on Data Storage and Data Engineering (DSDE 2010) organized by IACSIT and included in IEEE Explore , pp. 24-28, Bangalore, India, February 9-10, 2010, ISBN: 978-1-4244-5678-9.
16. Neeraj Kumar Rathore and Inderveer Chana, "Fault Tolerance Algorithm in Alchemi.NET Middleware", National Conference on Education & Research (ConFR10), Third CSI National Conference of CSI Division V, Bhopal Chapter, IEEE Bombay, and MPCST Bhopal, organized by JUIT, India, 6-7th March 2010.

Books

1. Shishir Kumar, Nitin Deepak, "Software Quality Attributes: Introduction", Lambert Academy Publication, Germany, Year – 2011, ISBN – 9783843393454.
2. Neeraj Kumar Rathore and Dr. Inderveer Chana "Checkpointing Algorithm in Alchemi.NET" in Lambert Academic Publication House (LBA), Germany 22 October 2010, ISBN-10: 3843361371, ISBN-13: 978-3843361378.

Book Edited

1. Vipin Tyagi, Pramod K. Verma, H.R. Vishwakarma, "Education and Research in Information Technology, MacMillan Publisher, 023-032-925-X.

Book Chapter Published

1. Ashwani Kumar, S. P. Ghreera, Vipin Tyagi, " A Comparison of Buyer-Seller Watermarking Protocol (BSWP) Based on Discrete Cosine Transform (DCT) and Discrete Wavelet Transform (DWT), Advances in Intelligent Systems and Computing, Volume 337, pp 401-408, DOI: 10.1007/978-3-319-13728-5_45
2. Banerjee P.S., Sahoo G., "Storage Optimization for Miniature Database Systems", Lap Lambert Academic Publishing GmbH & Co. KG, Saarbrücken, Germany, 1st ed, ISBN: 978-3-8473-7452-7, June 2012.
3. Nitin Rakesh, Vipin Tyagi, "Advances in Parallel Distributed Computing, Efficient Broadcasting in Parallel Networks Using Network Coding", Advances in Parallel Distributed Computing, http://dx.doi.org/10.1007/978-3-642-24037-9_48, Springer Berlin Heidelberg, pp 484-494, 2011.
4. Bhardwaj, Ved Prakash, Nitin, Tyagi, Vipin, " An Algorithmic Approach to Minimize the Conflicts in an Optical Multistage Interconnection Network", Advances in Computing and Communications, http://dx.doi.org/10.1007/978-3-642-22714-1_58, Springer Berlin Heidelberg, pp. 568-576, 2011.

List of Publications

SCI/ SCOPUS Indexed Journals

2015

1. Dinesh Verma, Shishir Kumar, “Exponential Relationship based approach for Predictions of Defect Density using Optimal Module Sizes”, DOI: 10.1007/s40010-015-0261-x, November 2015. SNIP: 0.236, SJR: 0.129, Citation Index: 0.239, Impact Factor: 0.242, SCI
2. G. Raghuwanshi, Vipin Tyagi, Texture image retrieval using adaptive Tetrolet transforms, Digital Signal Processing, Elsevier, 2015 : DOI : 10.1016/j.dsp.2015.09.003. Citation Index: 1.71, SNIP: 1.532, SJR: 0.698, H-Index 41, Impact Factor: 1.256, SCI
3. Prateek Pandey, Shishir Kumar and Sandeep Shrivastava, “A Fuzzy Decision Making Approach for Analogy Detection in New Product Forecasting”, Journal of Intelligent and Fuzzy Systems, vol. 28, no. 5, pp. 2047-2057, 2015. DOI: 10.3233/IFS-141483. Citation Index: 1.7, SNIP:1.229, SJR: 0.5, Impact Factor: 1.812 H-Index: 26, SCI
4. Vishal Sharma, Rajesh Kumar and Neeraj Kumar Rathore, “Topological Broadcasting Using Parameter Sensitivity Based Logical Proximity Graphs in Coordinated Ground-Flying Ad Hoc Networks”, Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications, Vol. 6, No. 3, September 2015. Citation Index: 1, SNIP: 1.546, SJR: 0.37, H-Index: 11
5. N Rathore and I Chana, "Variable Threshold Based Hierarchical Load Balancing Technique in Grid", Engineering with computers, Springer publication-London (England (UK), Page 597-615, ISSN: 0177-0667 (print version) ISSN: 1435-5663 (electronic version), Volume 31, Issue 3, June 2015. Citation Index: 1.65, SNIP: 1.188, SJR: 0.497, Impact Factor: 1.451, H-Index: 30, SCI
6. Amit Kumar, Shishir Kumar, “An Improved Neural Network Based Approach for Identification of self & Non-Self Processes”, WSEAS Transactions On Computers, Volume 14, Art. #30, pp. 272-286, May 2015. Citation Index:0.48, SNIP:0.508 , SJR: 0.23, H-Index: 14

7. Nishant Shrivastava, Vipin Tyagi, Noise-invariant structure pattern for image texture classification and retrieval, *Multimedia Tools and Applications*, Springer, 2015 : DOI: 10.1007/s11042-015-2811-2, Citation Index: 1.23, SNIP: 1.304, SJR: 0.568, Impact Factor: 1.346, H-Index: 28, SCI
8. Nishant Shrivastava, Vipin Tyagi, An integrated approach for image retrieval using local binary pattern, *Multimedia Tools and Applications*, Springer, 2015 : DOI: 10.1007/s11042-015-2589-2. Citation Index: 1.23, SNIP: 1.304, SJR: 0.568, Impact Factor: 1.346, H-Index: 28, SCI
9. Deepshikha Tiwari, Vipin Tyagi, Dynamic Texture Recognition based on completed volume local binary pattern, *Multidimensional Systems and Signal Processing*, Springer, 2015: DOI : 10.1007/s11045-015-0319-6. Citation Index: 1.36, SNIP: 1.308, SJR: 0.5, Impact Factor: 1.617, H-Index: 25, SCI
10. Harikesh Singh and Shishir Kumar, “WSQ: Web Server Queueing Algorithm for Dynamic Load Balancing”, *Wireless Personal Communication*, Springer, vol.80, issue 1, pp.229-245, January 2015. Citation Index: 0.9, SNIP: 0.865, SJR: 0.364, Impact Factor: 0.653, H-Index: 24, SCI
11. Nilesh Kumar Dubey, Shishir Kumar, “An Effective Approach of Distortion-Resistant Video Watermarking for Piracy Deterrence”, *International Journal of Security and Its Applications*, Vol.9, No.1 pp.283-294, January 2015. Citation Index: 0.5, SNIP:0.98 , SJR: 0.25, Impact Factor: NA, H-Index: 9

2014

12. Punit Pandey, Shishir Kumar, Satish Kumar Singh, “A robust logo watermarking technique in divisive normalization transform domain” *Multimedia Tools and Applications*, Springer. Volume 72, Issue 3, pp 2653-2677, October 2014. Citation Index: 1.23, SNIP:1.304, SJR: 0.57, Impact Factor: 1.346 H-Index: 33 , SCI
13. Mahesh Kumar and Shishir Kumar (2014). Improving Routing in Large Networks Inside Autonomous System. Springer’s *International Journal of Systems Assurance Engineering and Management.*, Volume 5, Issue 3, pp 383-390, September 2014. Citation Index:0.56, SNIP:0.566 , SJR: 0.3 , H-Index: 7,
14. Punit Pandey, Shishir Kumar, Satish Kumar Singh, “Rightful ownership through image adaptive DWT-SVD watermarking algorithm and perceptual tweaking” *Springer journal of Multimedia Tools and Applications*, Volume 72, Issue 1, pp 723-748, September 2014, Citation Index: 1.23, SNIP:1.304 , SJR: 0.57, Impact Factor: 1.346, H-Index: 33, SCI

15. N Rathore and I Chana, "Load Balancing and Job Migration Techniques in Grid : A Survey of Recent Trends", *Wireless Personal Communication*, Springer Publication-New-York (USA), ISSN print 0929-6212, ISSN online 1572-834X, Vol-79(3), Page 2089-2125, IF - 0.979, July 2014. Citation Index: 1, SNIP: 0.740, SJR: 0.394, Impact Factor: 0.979, H-Index: 29, SCI
16. N Rathore and I Chana, "Job migration with fault tolerance based QoS scheduling using hash table functionality in Social Grid Computing", *Journal of Intelligent & Fuzzy Systems*, IOS Press publication-Netherland, vol-27(6), pp no.- 2821–2833, ISSN print 1064-1246, IF- 0.936, June 2014. Citation Index: 0.96, SNIP: 0.873, SJR: 0.440, Impact Factor: 0.936, H-Index: 23,SCI
17. Nishant Shrivastava, Vipin Tyagi, An Efficient Technique For Retrieval Of Color Images In Large Databases, *Computers and Electrical Engineering*, Elsevier, 2014 : doi:10.1016/j.compeleceng.2014.11.009. Citation Index: 1.54, SNIP: 1.538 , SJR: 0.71, Impact Factor: 0.817, H-Index: 30, SCI
18. Paras Jain, Vipin Tyagi, LAPB: Locally Adaptive Patch-based Wavelet domain Edge-preserving Image Denoising, *Information Sciences*, Elsevier, 2014 DOI : 10.1016/j.ins.2014.09.060 ISSN : 0020-0255 Citation Index: 4.97, SNIP:3.242, SJR: 3.286, Impact Factor: 4.038 H-Index: 103, SCI
19. Paras Jain, Vipin Tyagi, A survey of edge-preserving image denoising methods, *Information System Frontiers*, 2014, DOI : 10.1007/s10796-014-9527-0 ISSN : 1387-3326. Citation Index: NA, SNIP: 1.182, SJR: 0.532, Impact Factor: 1.077, H-Index: 26, SCI
20. Amit Kumar and Shishir Kumar, "Decision Tree based Learning Approach for Identification of Operating System Processes", *WSEAS Transactions on Computers*, vol. 13, pp. 277-288, 2014. Citation Index: 0.48, SNIP: 0.508, SJR: 0.23, H-Index: 14
21. Amit Kumar and Shishir Kumar, "An Efficient Machine Learning Approach for Identification of Operating System Processes", *International Journal of Software Engineering and Its Applications*, vol. 8, no. 6, pp. 209-228, 2014. Citation Index: 0.37, SNIP:0.769, SJR: 0.2, H-Index: 6
22. A Kumar, S P Ghrera, Vipin Tyagi, Implementation of Wavelet Based Modified Buyer-Seller Watermarking Protocol (BSWP), *WSEAS Transactions on Signal Processing*, 10, pp. 212-220, 2014 Citation Index: 0.48, SNIP: 0.508, SJR: 0.23, H-Index: 14

23. Nishant Shrivastava, Vipin Tyagi, Content Based Image Retrieval based on Relative Locations of Multiple Regions of Interest using Selective Regions Matching, *Information Sciences*, vol. 259 pp. 212-224, Elsevier, 2014, ISSN : 0020-0255 Citation Index: 4.97, SNIP:3.242, SJR: 3.286, Impact Factor: 4.038 H-Index: 103,SCI

2013

24. Prateek Pandey, Shishir Kumar and Sandeep Shrivastava, “Forecasting using Fuzzy Time Series for Diffusion of Innovation: Case of Tata Nano Car in India”, *National Academy Science Letters*, ISSN 0250-541X (Print) 2250-1754 (Online), Volume 36, Issue 3, pp 299-309, June 2013. Citation Index: 0.36, SNIP:0.363, SJR: 0.16, Impact Factor: 0.292 H- Index: 8, SCI
25. Mahesh Kumar and Shishir Kumar “Analyzing and Improving Network Availability in Interdomain Routing” *Springer’s Journal of Wireless Personal Communications*. Volume 69, Number 4, Year March 2013. Citation Index: 0.9, SNIP: 0.865, SJR: 0.364, Impact Factor: 0.653, H-Index: 24, SCI
26. Prateek Pandey, Shishir Kumar and Sandeep Shrivastava, “A Critical Evaluation of Computational Methods of Forecasting Based on Fuzzy Time Series”, *International Journal of Decision Support System Technology*, ISSN- 1941-6296, Vol.5, issue 1, pp 25-40, March 2013. Citation Index: 0.19, SNIP:0.173, SJR: 0.18, H-Index: 1
27. Nishant Shrivastava, Vipin Tyagi, An effective scheme for image texture classification based on binary local structure pattern, *The Visual Computer* , Springer, DOI 10.1007/s00371-013-0887-0, 2013, ISSN : 0178-2789. Citation Index: 1.2, SNIP: 1.031, SJR: 0.7, Impact Factor:0.957, H-Index: 45, SCI
28. Mahesh Kumar and Shishir Kumar, An approach to stabilize interdomain routing protocol after failure. *Elsevier’s Journal of Computers and Electrical Engineering*. Vol. 39, Issue 2, Pages 237-245. Year February 2013. Citation Index:1.54 , SNIP:1.538 , SJR:0.711 , Impact Factor:0.817, H-Index:30,SCI

2012

29. Mahesh Kumar and Shishir Kumar “AGRIB-BHF: A sustainable and fault tolerant aggregation” *Elsevier’s Journal of Network and Computer Application*. Vol. 36, Issue 2, pp. 881-886, November 2012. Citation Index: 3.5 , SNIP:3.029 , SJR:1.54 , Impact Factor:2.229 , H-Index:39, SCI

30. U S Rawat, Shishir Kumar “ ECFS : An Enterprise class cryptographic file system for Linux” International Journal of Information Security and Privacy, Vol. 6 No. 2, pp 53-63, June 2012, Citation Index: 0.19, SNIP:0.174, SJR: 0.12, Impact Factor: NA, H-Index: 4
31. Niyati Aggarwal, Amit Kumar, Harsh Khatter and Vaishali Aggarwal, "Analysis the Effect of Data Mining Techniques on Database", Elsevier's Advances in Engineering Software, Vol. 47(1), pp. 164-169, May 2012. Citation Index: 1.92, SNIP: 1.809, SJR: 0.838, Impact Factor: 1.422, H-Index: 43, SCI
32. Kamlesh Gupta amd Sanjay Silakari, "Novel approach for fast compressed hybrid color image crypto system", Elsevier's Advances in Engineering Software, Vol. 49, pp. 29-42, July 2012. Citation Index: 1.92, SNIP: 1.809, SJR: 0.838, Impact Factor: 1.422, H-Index: 43, SCI
33. Nitin Rakesh and Vipin Tyagi , "Failure Detection using Contour approach on Network Coded Parallel Networks”, Procedia Engineering, Elsevier, Vol. 38, pp. 763-770, 2012, ISSN : 1877-7058, Citation index: 0.49, SNIP : 0.314, SJR : 0.27, H-index: 17
34. Nitin Rakesh and Vipin Tyagi, Parallel Architecture Coding: Link Failure-Recovery Mechanism (PAC: LF-RM)”, International Journal of Systems Assurance Engineering and Management, Springer, pp. 1-11, 2012. ISSN : 0975-6809 Citation Index: 0.56, SNIP:0.423, SJR: 0.3, Impact Factor: Not Available, H-Index: 7

2011

35. Nitin Rakesh and Vipin Tyagi, Linear-code Multicast on Parallel Architectures, Elsevier Journal on Advances in Engineering Software, Vol 42, No.12, pp. 1074-1088, 2011. Citation Index: 1.92, SNIP:1.809 , SJR:0.838, Impact Factor:1.40, H-Index:43, SCI
36. Satish K. Singh, Shishir Kumar, “Novel Adaptive Color Space Transform and Application to Image Compression” Elsevier Journal of Signal Processing: Image Communication, Vol. 26, Issue 10 , pp- 662–672, November 2011. Citation Index: 2.01, SNIP:1.543, SJR: 0.776, Impact Factor: 1.462 H-Index: 54 ,SCI
37. Satish K. Singh, Shishir Kumar, “Singular Value Decomposition Based Subband Decomposition and Multiresolution (SVD-SBD-MRR) Representation of Digital Color Images”, Pertanika: International journal of Science and Technology, Vol. 19, no. 2, pp. 229-235, February 2011. Citation Index: 0.27, SNIP: 0.525, SJR: 0.15, H-Index: 4

2010

38. Satish K. Singh, Shishir Kumar, Rajiv Saxena “MACSE-CCT (Minimum Average Color Space Entropy-Color Component Transform) Based Color Image Compression”, International Journal of Image and Data Fusion (Taylor & Francis) vol.1, no.4, pp.309-323, October 2010. Citation Index: 2.63, SNIP:1.412 , SJR: 0.84, H-Index: 13
39. Satish K. Singh, Shishir Kumar, “Mathematical Transforms and Image Compression: A Review”, Maejo International Journal of Science & Technology (1905-7873) , vol.4, no.2, pp 235-249, July 2010. Citation Index: 0.74 , SNIP:0.787 , SJR: 0.18 , Impact Factor: 0.367, H-Index: 7,SCI

Other Journal

2015

1. Vivek Singh and Neelesh Kumar Jain, “Digital Image Forensics in Multimedia Security: A Review “, International Journal of Engineering Research and Technology, vol 4, no.5,pp. 1232-1237, May 2015.

2014

2. Harikesh Singh , Shishir Kumar, “Analysis & Minimization of the Effect of Delay on Load Balancing for Efficient Web Server Queueing Model” International Journal of System Dynamics Applications, Vol. 3, Issue 4, 1-16, pp. 1-16, December 2014.
3. Prateek Pandey, Shishir Kumar and Sandeep Shrivastava, “A unified strategy for forecasting of a new product”, Decision, Volume 41, Issue 4 , pp 411-424, ISSN 0304-0941 (Print) 2197-1722 (Online), December 2014
4. Shailaja Patil, Ashish Gupta and Mukesh Zaveri, “Recovery of Lost Target Using Target Tracking in Event Driven Clustered Wireless Sensor Network,” Journal of Computer Networks and Communications, vol.2014, pp.1-15, December 2014.
5. Dinesh Verma, Shishir Kumar, “An improved approach for Reduction of Defect Density using Optimal Module Sizes”, Hindawi Journal of Advances of Software Engineering vol. 2014, Article ID 803530, pp-1-7, doi:10.1155/2014/803530. August 2014.
6. Amit Kumar, Shishir Kumar, “Artificial Neural Network Based Approach for Identification of Operating System Processes” International Journal of Applied Information Science, Vol. 2 Issue 1, pp. 01-11, June 2014

7. Nitin Deepak , Shishir Kumar, “Perceptions on Risk Management Strategies in Software Development”, International Journal of System and Software Engineering, Vol. 2, Issue 1, pp.20-27, June 2014 .
8. D. Ansari, S. P. Ghrera, Vipin Tyagi, Pixel based Image Forgery Detection, IETE Journal of Education, Taylor and Francis, 55(1), 2014, pp. 40-46 DOI: 10.1080/09747338.2014.921415.
9. Govind Singh Rajput and Ratnesh Litoriya, " Corad Agile Method for Agile Software Cost Estimation", OALib Journal, DOI: 10.4236/oalib.1100579, ISSN: 2333-9721, PP. 1-13, June 2014.
10. Harikesh Singh and Shishir Kumar , “Resource Cost Optimization for Dynamic Load Balancing on Web Server System”, International Journal of Distributed and Cloud Computing, vol.2, issue 1, pp. 7-18, June 2014.
11. Amit Kumar and Shishir Kumar, “An Efficient Machine Learning Approach for Identification of Operating System Processes”, International Journal of Software Engineering and Its Applications, vol. 8, no. 6, pp. 209-228, 2014.
12. Neelesh Kumar Jain and Abhishek Tiwari, “Analysis of Multiscale Transform Based Digital Image Watermarking for Multimedia Files”, International Journal for Scientific Research and Development, vol. 2, no. 2, pp. 177-182, April 2014.
13. Amit Kumar and Shishir Kumar, “Artificial Neural Network Based Approach for Identification of Operating System Processes”, Journal of Applied Information Sciences, vol. 2, no. 1, pp. 1-11, 2014.

2013

14. Nileshkumar Patel, Keshav Goel, Digital receipt: A viable replacement for the printed receipts on thermal papers in International Journal of Innovative Research and Development, Volume 2, Issue 12, pp 38-41, December 2013.
15. Jain, Vipin Tyagi, Spatial and Frequency Domain Filters for Restoration of Noisy Images, IETE Journal of Education, Taylor and Francis, Vol. 54(2), , pp. 108-116, December 2013
16. Vipin Tyagi, Author Identification of a Hand written document. Indian Science Cruiser, 27(6), pp 39-45, November 2013
17. Ravindra Kumar Singh, Narendra S. Chaudhari, KanakSaxena, "Probabilistic Selection of QoS Paths for Improving Survivability in MPLS Networks," Communications and Network, Vol. 5 No. 4, pp. 328-336. doi: 10.4236/cn.2013.54041, 20th November 2013

18. Neeraj Kumar Rathore and Inderveer Chana, "Report on Hierarchical Load Balancing Technique in Grid Environment", International journal of scientific and innovative technology, i-manager's Journal on Information Technology, Vol. 2, No. 4, ISSN Print: 2277-5110 , ISSN Online: 2277-5250, pp-21-35, November 2013.
19. Banerjee P.S., Uttam Kumar Roy, Paper titled "Modified PSOLA-Genetic Algorithm based approach for Voice Re-Construction", Journal of Information Technology, Publishing India Group, Volume 2: Issue 4, pp 1 – 9, November 2013
20. Babita Tiwari ,Tanuj Tyagi, Akhil Saxena, Sunil Nishad, "Lexical and Parser tool for CBOOP program",IOSR Journal of Computer Engineering(IOSR-JCE), Volume 10,Issue 6, PP 30-34 , June 2013
21. Vipin Tyagi et al., Query Centric CPS (QCPS) Approach for Multiple Heterogeneous Systems, Intl. Journal of Computer Science and Technology, Vol. 4, no. 2, April-June 2013, pp. 23-27, 2013.
22. Vipin Tyagi et al., Validated Real Time Middle Ware For Distributed Cyber Physical Systems Using HMM, Intl. Journal of Parallel and Distributed Systems, Vol. 4 no. 2, pp. 23-33, March 2013.

2012

23. U S Rawat, Shishir Kumar "Distributed Encrypting File System for Linux in User-space", International Journal Computer Network and Information Security, Vol 4. Issue. 8, pp 33-39, August 2012.
24. Nitin Manji, Nileshkumar Patel, Signal strength based Route Selection in MANETs in International Journal of Computer Science and Telecommunications, Volume 3, Issue 7, pp 27-30, July 2012.
25. Baisakh, Nileshkumar Patel, Energy Saving and Survival Routing Protocol for Mobile Ad-hoc Networks in International Journal of Computer Applications, Volume 48, Issue 2, pp 13-17, June 2012
26. Ajay Kumar, Shishir Kumar and Shakshi Saxena, "An Efficient Approach for Incremental Association Rule Mining through Histogram Matching" International Journal of Information Retrieval Research, Vol.2, No. 2, pp. 29-42, June 2012.
27. Narendra Sharma Aman Bajpai, and Ratnesh Litoriya " Comparison the various clustering algorithms of weka tools ", International Journal of Emerging Technology and Advanced Engineering (ISSN 2250-2459), Volume 2, Issue 5, pp 73-80, May 2012

28. Narendra Sharma and Ratnesh Litoriya, " A comparison of software cost estimation methods: A Survey," *The International Journal of Computer Science & Applications*, ISSN – 2278-1080, Volume 1, No. 3, pp 121-127, Mar 2012
29. R. Kumar Singh, N. S. Chaudhari and K. Saxena, "Load Balancing in IP/MPLS Networks: A Survey," *Communications and Network*, Vol. 4 No. 2 , pp. 151-156. doi: 10.4236/cn.2012.42020, 18th May 2012
30. Narendra Sharma Am,an Bajpai, and Ratnesh Litoriya "Incorporating Data Mining Techniques on Software Cost Estimation: Validation and Improvement" *International Journal of Emerging Technology and Advanced Engineering*, ISSN 2250-2459, Volume 2, Issue 3, PP 301-309, March 2012
31. Ajay Kumar, Shishir Kumar and Shakshi Saxena, "An Efficient Approach for Incremental Association Rule Mining through Histogram Matching" *International Journal of Information Retrieval Research*, Vol.2, No. 2, pp. 29-42, 2012.

2011

32. Harikesh Singh, Shishir Kumar, "Dispatcher Based Dynamic Load Balancing on Web Server System", *International Journal of Grid and Distributed Computing*, Vol. 4, No.3, pp.89-106, September 2011
33. Amit Kumar, Shishir Kumar "A Framework for Stability and Security of An Operating System Through Process level" *TECHNIA: International Journal of Computing Science and Communication Technologies*, pp- 674-677 Vol. 4 No. 1, July 2011.
34. Praveen Kaushik, Nileshkumar Patel, Jyoti Singhai , "Energy Efficient Clear Channel Assessment for LR-WPAN" , *International Journal of Computer Science issues*, Volume 8, Issue 3, pp 91-96, May 2011.
35. Nitin Rakesh and Vipin Tyagi , Linear Network Coding on Multi-Mesh of Trees using All to All Broadcast, *International Journal of Computer Science*, Vol 8, no. 3, pp.462-471, 2011.
36. Vipin Tyagi et al., Problem Reduction in Online Payment System using Hybrid Model, *Intl. Journal of Managing Information Technology*, Vol. 3, Nov. 3, pp, 2011.
37. Pawan Jindal, Amit Kumar, Shishir Kumar, "Dynamic version of Traveling Salesman Problem" published in *International Journal of Computer Applications* (ISSN: 0975-8887) Vol. 19, No.1, pp 37 - 46, April 2011

38. Ratnesh Litoriya and Anshu Ranjan “Relational Algebra Interpreter in Context of Query Languages” International Journal of Computer Theory and Engineering, Vol.3, No.1, pp-1793-8201, February 2011
39. Harikesh Singh, Shishir Kumar, “Development of Distributed Monitoring Framework”, International Journal of Advanced Research in Computer Science (IJARCS), vol. 2, issue I, pp.53-61, February 2011
40. Nitin Rakesh and Vipin Tyagi, Minimizing the Switch and Link Conflicts in an Optical Multi-stage Interconnection Network, Intl. Journal of Computer Science Reviews, Vol. 8(4), No. 1, pp. 206-214, 2011.
41. J. H. Agarwal, Vipin Tyagi, Telecommunications’ Journey from Past (Smoke Signals, Drum Beats) to Present (Internet, Telemetry), and the Way Ahead – 2010 and Beyond”, Indian Journal of Science Communication (DST), Vol. 10, no. 1, pp 12-17, 2011.

2010

42. Mahesh Kumar, and Shishir Kumar (2010), “Addressing the problem of Convergence delay in inter-domain routing protocol”, Pragyana: Journal of Information Technology, Vol 8, Issue 2, Pages 1-6, December 2010
43. Shishir Kumar, Prateek Pandey, “Dynamic Performers using Fuzzy logic in Business process management,” Pragyana: Journal of Information Technology, ISSN- 0974-5513, vol.8, issue 12, pp 71-75, 2010
44. Vipin Tyagi et al., Biometrics Recognition: An overview , Indian Science Cruiser, Vol. 24, no. 5, pp. 26-31, November 2010.
45. Punit Pandey, Deepshikha Pandey, Shishir Kumar, “Reinforcement Learning by Comparing Immediate Reward”, International Journal of Computer Science and Information Security, Vol. 8, No. 6, pp210-214, September 2010.
46. Pawan Jindal, Amit Kumar, Shishir Kumar , “Analysis of shortest path algorithms” published in Global Journal of Computer science and Technology, vol.10 Issue 8, September 2010
47. Pawan Jindal, Amit Kumar , Shishir Kumar , “An algorithmic approach for traveling salesman problem published in international Journal of Computer science and Technology, vol.1 Issue 1, September 2010
48. Pawan Jindal, Amit Kumar, Shishir Kumar, “Towards the solution of NP Complete problems” published in the Journal of Applied Computer science and mathematics vol.4 Issue 9, page 63-66, 2010.

49. Sarika Sharma, Vipin Tyagi and D.P.Goel , e-learning Challenges: Are We Ready?, Indian Science cruiser, Vol. 24, no. 4, pp.57-61, August 2010.
50. Pawan Jindal, Shishir Kumar, Amit Kumar, “Minimum and Maximum Ratio of Number of Red Internal Nodes to Black Internal Nodes in Red Black Tree”, International Journal of Computer Applications (0975 – 8887), Volume 5– No.9, pp 01-13, August 2010
51. Pawan Jindal, Amit Kumar , Shishir Kumar , “Minimum and maximum ratio of number of red internal nodes to black internal nodes in a red, black tree” published in the International Journal of Computer Applications, vol.5 No.9, August 2010
52. Neeraj Kumar Rathore and Inderveer Chana, “Checkpointing Algorithm in Alchemi.NET”, Pragmaan: Journal of Information Technology, IMS Dehradun. ISSN No.: 0974-5513, IEEE, CSI and MPCET, Volume 8: Issue 1, pp no. 32-38, Dehradun, June 2010.
53. Shishir Kumar , Priyank Singh, Vivek Kumar, “ Architecture for Mobile based Face Detection / Recognition System”, International Journal of Computer Science & Engineering , Vol.12 (3) , pp 889-894 , May 2010.

International Conference Publications

2015

1. Angel Bansal, Omprakash Kaiwartya, Ravindra Kumar Singh, Shiv Prakash, “Maximizing Fault Tolerance and Minimizing Delay in Virtual Network Embedding using NSGA-II” Proceedings of the Third International Symposium on Women in Computing and Informatics WCI'15, Kochi, India, pp. 124-130, 10-13 August 2015, ISBN: 978-1-4503-3361-0.
2. Neeraj Mandhan, Dinesh Verma, Shishir Kumar, “Analysis of Approach for Predicting Software Defect Density using Static Metrics” International Conference on Computing, Communication and Automation (ICCCA2015), Galgotia University, Gr. Noida, pp 880-886, 15-16, May 2015, ISBN:978-1-4799-8890-7
3. Shifa Davis, Amit Kumar Srivastava, Shishir Kumar, “Automation In Cloud Computing Using Constraint Based Agent”, International Conference on Computing, Communication and Automation (ICCCA2015), Galgotia University, Gr. Noida, pp 649-654, 15-16, May 2015, ISBN:978-1-4799-8890-7

4. Praveen Singh Thakur, Shishir Kumar, “Technique for Estimation of the Position of the Pirate In-Theater Piracy” proceedings of 2nd International Conference on Advances in Computing and Communication Engineering (ICACCE-2015), IEEE Computer Society, pp 515-518, 01-02 May 2015. ISBN No.978-1-4799-1734-1
5. Vinay Jain , Shishir Kumar, “Big Data Analytic Using Cloud Computing”, Proceedings of 2nd International Conference on Advances in Computing and Communication Engineering (ICACCE-2015), IEEE Computer Society, pp 667-672, May 01-02,2015. ISBN No.978-1-4799-1734-1
6. Banerjee P.S., Sahoo Gadadhar, “Fluctuating Pattern Size Handling for The Extracted Base Verb Forms From Participles and Tenses for Intelligent NLP”, Published in proceedings of the International Conference On Emerging ICT For Bridging Future (CSI 2014), JNTU, Hyderabad, Andhra Pradesh, India, , Advances in Intelligent Systems and Computing, Springer International Publishing, vol. 338, Springer AISC Series, pp.405–414, 12-14 December 2014

2014

7. Anshul Gupta, Nileshkumar R. Patel and Sabana Khan, “Automatic Speech Recognition Technique For Voice Command”, in proceeding of the IEEE International Conference on Science, Engineering and Management Research (ICSEMR 2014), , pp. 1-5, ISBN: 978-1-4799-7614-0, 27-29 November 2014
8. Shaifali Bhatnagar, Shishir Kumar and Ashish Gupta, “An approach of efficient and resistive digital watermarking usingSVD,” in Proceeding of International Conference on Advances in Computing, Communications and Informatics ICACCI, 2014, pp. 2470-2475, September 24-27, 2014. ISBN No. 978-1-4799-3080-7/14; DOI:10.1109/ICACCI.2014.6968275
9. Nilesh Kumar Dubey, Shishir Kumar, “A Review of Watermarking Application in Digital Cinema for Piracy Deterrence” Proceedings of International Conference on Communication Systems and Network Technologies, CSNT-2014, Bhopal, IEEE Computer Society April 07-09 2014, pp 626-630. ISBN - 9789383842155;DOI 10.1109/CSNT.2014.131
10. Shaifali Bhatnagar and Shishir Kumar, “Web Mining: An Eonian Concept”, in proceeding of the First International Conference on Advances in Computing & Communication Engineering (ICACCE-2014) organized by B. T. Kumaon Institute of Technology, Dwarahat, Almora, Uttrakhand, February 22-23, 2014, pp.127-132. ISBN -9789383842155
11. Parijat Rathore, Deepshikha Pandey and Shishir Kumar, “Dynamic Texture Recognition: A Review”, in proceeding of the First International Conference on Advances in Computing & Communication Engineering (ICACCE-2014)

organized by B. T. Kumaon Institute of Technology, Dwarahat, Almora, Uttrakhand, February 22-23, 2014, pp.121-126. ISBN -9789383842155

12. Harikesh Singh and Sumesh Kumar Nair, “Analysis of Grid Computing Security using Trusted Computing”, in proceeding of the First International Conference on Advances in Computing & Communication Engineering (ICACCE-2014) organized by B. T. Kumaon Institute of Technology, Dwarahat, Almora, Uttrakhand, 22nd -23rd February 2014, pp. 86-91. ISBN: 978-93-83842-15-5.
13. Abhishek Tiwari and Neelesh Kumar Jain, “Wave Atom based compression method for fingerprint images”, in proceeding of the First International Conference on Advances in Computing & Communication Engineering (ICACCE-2014) organized by B. T. Kumaon Institute of Technology, Dwarahat, Almora, Uttrakhand, pp. 82-85, February 22-23, 2014

2013

14. Amit Kumar and Shishir Kumar, “Genetic Algorithm Approach for Non-self OS Process Identification”, in proceeding of the Third International Conference on Soft Computing for Problem Solving (SocProS 2013) IIT Roorkee, , Springer Series: Advances in Intelligent Systems and Computing, vol. 259. pp 517-528, December 26-28, 2013, ISBN -978-81-322-1768-8
15. Neeraj Kumar Rathore and Inderveer Chana, “A Sender Initiate Based Hierarchical Load Balancing Technique for Grid Using Variable Threshold Value” in International conference IEEE-ISPC, ISBN- 978-1-4673-6188-0, pp.1-6, 26-28 September 2013
16. Ravindra Kumar Singh, Narendra S. Chaudhari, “Integrated Load Balancing Approach for Fault Tolerance in MPLS Networks”, IEEE International Conference on Communication Systems and Network Technologies (CSNT), Gwalior, India, pp. 295-298, 6-8 April 2013, 2013, ISBN 978-1-4673-5603-9.
17. Dinesh Verma “Minimization of Defect Density with respect to module size”, In proceeding of 28th M.P. Young Scientist Congress , February 28-March 01, 2013, pp.40.
18. Vipin Tyagi, "Green information search : A requirement for sustainable development", 100 Indian Science Congress, Jadavpur Univ, Kolkata, January 03-07, 2013, pp. 52.

2012

19. Baisakh, Nilesh Kumar Patel, Shishir Kumar, "Energy Conscious DSR in MANET", proceedings of the 2nd IEEE International Conference on Parallel, Distributed and Grid Computing , JUIT, Wagnaghat, December 6-8, 2012 , pp 784-789. ISBN - 978-1-4673-2925-5
20. Ravindra Kumar Singh, Narendra S. Chaudhari, KanakSaxena, "Enhanced traffic aware LSP selection method in MPLS networks", Ninth IEEE International Conference on Wireless and Optical Communications Networks (WOCN), Indore, India, pp. 1-4, 20-22 September 2012, ISBN 978-1-4673-1988-1.
21. Ratnesh Litoriya, Narendra Sharma andAbhay Kothari "Incorporating Cost driver substitution to improve the effort using Agile COCOMO II", CSI Sixth International Conference on Software Engineering (CONSEG), technically sponsored by IEEE, pp. 1-7 , September 05-07, 2012. (ISBN: 978-1-4673-2175-4)
22. Nishant Shrivastava and Vipin Tyagi, " Multistage Content based image retrieval", CSI 6th International conference CONSEG, CSI Indore, pp. 1-9, September 5-7, 2012. DOI : 10.1109/CONSEG.2012.6349469
23. Amit Kumar Srivastava and A.K. Misra,"Plugging DHCP security holes using S-DHCP", Fifth International Conference on Network Security & Applications (CNSA2012),LNCS Springer, July,2012, ISBN:978-3-642-31513-8
24. Nitin Rakesh and Vipin Tyagi, "Failure Detection Using Contour Approach on Network Coded Parallel Networks", International Conference on Modelling, Optimisation And Computing (ICMOC–2012), , NICHE, Kumarakoil, Tamil Nadu, India, April 10-11, 2012
25. Prateek Pandey and Vinay Kumar Jain, "Time Series Forecasting with Fuzzy and Neural Network: A Comparative Study using Sugar Production Data", International Conference on Electronic Communication & Instrumentation (e-Manthan), organized by SR. Group of Institutions Jhansi, pp. 464-470, ISBN: 978-93-82062-18-9, April 6-7, 2012
26. Nitin Rakesh and Vipin Tyagi, "Failure Recovery in XOR'ed Networks", 2012 IEEE International Conference on Signal Processing, computing and control, JUIT, Wagnaghat, India. DOI: 10.1109/ISPCC.2012.6224359, March 2012,
27. Nitin Rakesh and Vipin Tyagi, "Failure Repair Approach for Multiple Source Parallel Networks", 2012 IEEE International Conference on Computing, Communication And Applications, , PSNA College of Engineering and Technology, Dindigul, Tamilnadu, India. February 2012

2011

28. Harikesh Singh, Shishir Kumar, "A Framework for Modified Architecture of Grid Simulators", Proceedings of International Conference on Advance Computers and Networks (ADCONS2011), pp 27-31, NITK, Surathkal, December 16 - 18, 2011. ISBN 13- 9783642292798
29. Neeraj Kumar Rathore and Inderveer Chana, "A Cogitative Analysis of Load Balancing Technique with job migration in Grid Environment", World Congress on Information and Communication Technology (WICT), Mumbai, IEEE proceedings paper, ISBN -978-1-4673-0127-5 pp- 77-82, December 2011
30. Amit Kumar, Shishir Kumar, Vishrut Sharma, "A Comparative Analysis of Various Exact String-Matching Algorithms for Virus Signature-Detection"." is published in the proceedings of first International Conference on Emerging Trends in Soft Computing and ICT (SCICT2011) - Guru Ghasidas Vishwavidyalaya, Bilaspur (CG State) - India, pp 162-166, March 16-17, 2011. ISBN - 9772321611005
31. Harikesh Singh, Shishir Kumar, "Task Oriented Performance Monitoring of Distributed Computing Server", International Conference on Advances in Communication, Embedded System and Computing (ICACEC) organized by SIRTE, Bhopal (MP), January 14-15, 2011
32. Nitin Rakesh and Vipin Tyagi, "Efficient Broadcasting in Parallel Networks Using Network Coding", PDCTA-2011, CCIS 203, pp. 484–494, 2011, Springer-Verlag Berlin Heidelberg 2011, Manonmaniam Sundharanar University, Tirunelveli, TN, India. DOI: 10.1007/978-3-642-24037-9_48
33. Vipin Tyagi, "Ethics in Education and Research", Presidential Address, 98th Indian Science Congress, Chennai, pp. 3-21, January 3-07, 2011
34. P. Pandey and D. Pandey. Reduct Based Q-learning: an Introduction. In Proceedings of the 2011 International Conference on Communication, ICCCS' 11, pages 285–288, New York, NY, USA, ACM, February 2011.

2010

35. Shishir Kumar, Satish K. Singh, "Study and Implementation of Entropy Encoding System for Image Compression", in Proceeding of International Conference on Emerging Trends and Technologies. ISBN 978-0-7695-4246-1;DOI 10.1109/ICETET.2010.55, November 17-19, 2010

36. Amit Kumar, Shishir Kumar "A Framework for Stability and Security of an Operating System through Process level" proceeding of 4th IEEE International Conference on Advance Computing & Communication Technologies (ICACCT2010) page 527-531, October 30, 2010. ISBN 978-93-80697
37. Singh Bhadauria, S. , Sharma, V. and Litoriya, R, " Empirical analysis of Ethical issues in the era of future information technology", 2nd International Conference on Software Technology and Engineering (ICSTE) organized by IACSIT and included in IEEE Explore, pp. V2-31-V2-35, Puerto Ricoh USA, October 3-5 2010, ISBN: 978-1-4244-8667-0
38. Satish K. Singh, Shishir Kumar, "Performance Analysis of Color Space Transform on Digital Color Image Compression", in Proceedings of International Conference on Computational Vision and Robotics (ICCV-2010), pp. 247-258, August 21-22, 2010
39. Soner, S.,Jain, A., Tripathi, A. and Litoriya, R., " A novel approach to calculate the severity and priority of bugs in software projects", The International Conference on Education Technology and Computer (ICETC 2010), Organizing by IACSIT & IEEE Society and included in IEEE Explore, pp. V2-50-V2-54, Shanghai, China, June 22 - 24, 2010, ISBN: 978-1-4244-6367-1
40. Ratnesh Litoriya and Anshu Ranjan " Implementation of Relational Algebra Interpreter using another query language ", International Conference on Data Storage and Data Engineering (DSDE 2010) organized by IACSIT and included in IEEE Explore , pp. 24-28, Bangalore, India, February 9-10, 2010, ISBN: 978-1-4244-5678-9
41. D. Pandey and P. Pandey, "Approximate Q-Learning: An Introduction," in Proc. 2nd ICMLC, pp. 317–320, February 2010

National Conference Publications

2015

1. Hridesh Kumar, Harikesh Singh and Shishir Kumar, "Resource Allocation Mechanism in Grid Computing: A Review", Proceedings of National Conference on Contemporary Computing & Informatics (NCCI-2015) Madan Mohan Malviya University of Technology, Gorakhpur, pp.137-143, May 08-09, 2015, ISBN: 978-93-84224-25-7
2. Neeraj Kumar Rathore, "Load Balancing Algorithm for Grid" in 30th M.P. Young Scientist congress, Bhopal, M.P., pp-56, February 28, 2015.

2014

3. Neeraj Kumar Rathore, “An Efficient Hierarchical Load Balancing Technique for Grid” in 29th M.P. Young Scientist congress, Bhopal, M.P., pp.55, February 28, 2014.

2013

4. Harikesh Singh, “Analysis & Design of Efficient Grid FTP Architecture for Web Servers”, in proceeding of 28th M. P. Young Scientist Congress organized by M. P. Council of Science and Technology, Bhopal, 28th Feb-1st March 2013.

2012

5. Rohini Chouhan and Neeraj Kumar Rathore, “Comparision of Load Balancing Technique in Grid”, 17th Annual conference of Gwalior Acadmy of mathematical science and Natonal symposium on computational mathamatics & Information Technology , JUET, Guna, M.P., 7-9, December 2012.

2010

6. Harikesh Singh, Shishir Kumar, “Performance Analysis of Distributed Computing Server”, Proceedings of National Conference of MPCST & IETE, on Emerging Trends in Computer Science & Informatics (ETCSI’10), March 19-21, 2010
7. Neeraj Kumar Rathore and Inderveer Chana, “Fault Tolerance Algorithm in Alchemi.NET Middleware”, National Conference on Education & Research (ConFR10), Third CSI National Conference of CSI Division V, Bhopal Chapter, IEEE Bombay, and MPCST Bhopal, organized by JUIT, India, 6-7th March 2010.

Books Published

2015

1. Shishir Kumar, Shefali Bhatganar, “Secure Transactions Of Biometric Data”, Lambert Academy Publication, Germany, Year – 2015, ISBN: 9783659691690

2014

2. Shishir Kumar, Parijat Rathor, “ Security of Biometric Data Using DNA Sequence Watermarking”, Lambert Academy Publication, Germany, Year – 2014, ISBN: 9783659691690

2011

3. Shishir Kumar, Nitin Deepak, "Software Quality Attributes: Introduction", Lambert Academy Publication, Germany, Year – 2011, ISBN – 9783843393454,
4. Harikesh Singh, "Use of Zernike Moments in Handwritten Character Recognition", LAMBERT Academic Publishing, Germany, August, 2011. ISBN: 978-3-8465-5113-4.

2010

5. Neeraj Kumar Rathore and Dr. Inderveer Chana "Checkpointing Algorithm in Alchemi.NET" in Lambert Academic Publication House (LBA), Germany 22 October 2010, ISBN-10: 3843361371, ISBN-13: 978-3843361378

Books Edited

2015

1. D S Hooda, Shishir Kumar , "Computational Mathematics & Information Technology", Narosa Publisher, India, Year – 2015, ISBN: 9788184874204

2011

2. D S Hooda, Shishir Kumar , " Learning Manual of Workshop on Optimization and Information Theory with their applications", Excel India Publisher, ISBN-9380697,2011

2010

3. Vipin Tyagi, Pramod K. Verma, H.R. Vishwakarma, "Education and Research in Information Technology, MacMillan Publisher, 023-032-925-X

Book Chapter Published

2015

1. G. Raghuwanshi, Vipin Tyagi, "A Survey on Texture Image Retrieval", Advances in Intelligent Systems and Computing, Vol. 381(3), pp. 427-435, Publisher Springer International Publishing, DOI: 10.1007/978-81-322-2526-3_44
2. Paras Jain, Vipin Tyagi, "An Adaptive Edge-Preserving Image Denoising Using Epsilon-Median Filtering in Tetrolet Domain", Advances in Intelligent Systems and Computing, Volume 337, Pages 393-400, 2015 Publisher Springer International Publishing, DOI : 10.1007/978-3-319-13728-5_44

3. Ashwani Kumar, S. P. Ghreera, Vipin Tyagi, " A Comparison of Buyer-Seller Watermarking Protocol (BSWP) Based on Discrete Cosine Transform (DCT) and Discrete Wavelet Transform (DWT), Advances in Intelligent Systems and Computing, Volume 337, pp 401-408, DOI: 10.1007/978-3-319-13728-5_45
4. Nishant Shrivastava, Tyagi, Vipin, "A review of ROI Image Retrieval Techniques", Advances in Intelligent Systems and Computing 328, Vol. 2, pp. 509-520, 2015, Springer Berlin Heidelberg, DOI: 10.1007/978-3-319-12012-6_56, 2015
5. Ratnesh Litoriya and Rahul Jain, Book Chapter in “Computational Mathematics and Information Technology” publish by Narosa Publishing House Pvt. Ltd., pp-214-219 , March 2015

2012

6. Banerjee P.S., Sahoo G., “Storage Optimization for Miniature Database Systems”, Lap Lambert Academic Publishing GmbH & Co. KG, Saarbrücken, Germany, 1st ed, ISBN: 978-3-8473-7452-7, June 2012.

2011

7. Tarun Gupta, Tyagi, Vipin, " A Novel Approach for Task Processing through NEST Network in a Grid", ISBN 978-3-642-22576-5, High Performance Architecture and Grid Computing, Communications in Computer and Information Science, http://dx.doi.org/10.1007/978-3-642-22577-2_3, Springer Berlin Heidelberg, pp. 24-29, 2011
8. Bhardwaj, Ved Prakash, Nitin, Tyagi, Vipin, " An Algorithmic Approach to Minimize the Conflicts in an Optical Multistage Interconnection Network", Advances in Computing and Communications, http://dx.doi.org/10.1007/978-3-642-22714-1_58, Springer Berlin Heidelberg, pp. 568-576, 2011
9. Nitin Rakesh, Vipin Tyagi, "Advances in Parallel Distributed Computing, Efficient Broadcasting in Parallel Networks Using Network Coding", Advances in Parallel Distributed Computing, http://dx.doi.org/10.1007/978-3-642-24037-9_48, Springer Berlin Heidelberg, pp 484-494, 2011

2010

10. Shishir Kumar , “The Dawning Era of Autonomic Computing” Education and Research in Information Technology, pp 500-509, ISBN- 9780230-32925-6,2010

11. Harikesh Singh, Shishir Kumar, “Taxonomy of Distributed Parallel Storage System”, presented on Conference on Education & Research (ConFR10), Third CSI National Conference of CSI Division V, Region III, Bhopal Chapter, IEEE Bombay, and MPCST Bhopal, pp. 120-025, March 6-7 , 2010, ISBN:970230329256
12. Banerjee P.S., R. Sukesh Kumar, “Impact of Particle Swarm Optimization Algorithm(PSO) for Better Nano-devices”, in proc 3rd Computer Society of India National Conference on Education and Research, ConfER 2010, Jaypee University of Engineering and Technology, Raghogarh, Guna, MP, pp. 112-114, March 6-7, 2010, ISBN:970230329256
13. Ajay Kumar, Harman Gurjral and N.K.Joshi , “ETL Tools Strength, Weakness and current trends”” Third CSI National Conference of CSI Division V, Region III, Bhopal Chapter, IEEE Bombay, and MPCST Bhopal, pp. 400-407, March 6-7, 2010, ISBN:970230329256
14. Amit Kumar, Shishir Kumar, “Artificial immunity as a security tool”, presented on Conference on Education & Research (ConFR10), Third CSI National Conference of CSI Division V, Region III, Bhopal Chapter, IEEE Bombay, and MPCST Bhopal, pp. 207-213, March 6-7, 2010, ISBN:970230329256
15. Pawan Jindal, Amit Kumar, Shishir Kumar, “An approximate algorithm for travelling salesman problem,”, presented on Conference on Education & Research (ConFR10), Third CSI National Conference of CSI Division V, Region III, Bhopal Chapter, IEEE Bombay, and MPCST Bhopal, pp. 299-302, March 6-7, 2010, ISBN:970230329256

List of Faculty selected to visit other laboratories / institutes / industries.

International Visit

Vipin Tyagi

- Dr. Vipin Tyagi visited UTIA, Czech Republic under Scientist foreign exchange programme during May 06-19 ,2012.

National Visit

Vipin Tyagi

- Dr. Vipin Tyagi was resource person in workshop on MATLAB organised by MPCST Bhopal during Feb.16-24 2014
- Dr. Vipin Tyagi delivered an Invited talk on “Cyber Forensics” in 48th Annual Convention at Vizag during Dec. 13-15 2013
- Dr. Vipin Tyagi delivered a talk on Research Ethics in 28th M. P. Young Scientist Congress during Feb 28 - Mar 1, 2014
- Dr. Vipin Tyagi delivered an invited talk and chaired a session in an International Conference ICIREMPS - 2K15 held at SIRT, Bhopal, during February 19-21 2015
- Dr. Vipin Tyagi was resource person in a workshop on Network Security organized by Bhopal School of Social Sciences, Bhopal supported by UGC during March13-14, 2015
- Dr. Vipin Tyagi delivered an invited talk on "Telecommunications and ICT-Drivers of Innovation" at Institutions of Engineers, Udaipur chapter on World Telecommunications day, May17, 2015
- Dr. Vipin Tyagi delivered an invited talk during International conference on ICT for sustainable development organized by ASSOCHAM at Ahmedabad during July 03-04, 2015
- Dr. Vipin Tyagi delivered an invited talk at a seminar organized by CSI student branch at GGITS, Jabalpur on 09 Sept. 2015
- Dr. Vipin Tyagi attended and chaired a session during 2nd IEEE International Conference on Parallel, Distributed and Grid computing held at JUIT, Wagnaghat, during December 6-8, 2012

- Dr. Vipin Tyagi attended and chaired a session during 48th Annual convention of CSI at Vizag, during 13-15 Dec. 2013
- Dr. Vipin Tyagi attended and chaired a session during 2nd IEEE International Conference on Image Processing held at JUIT, Wagnaghat, during December 9-11, 2013
- Dr. Vipin Tyagi attended and chaired a session during ICTCS - 2014 at Udaipur during November 14-16, 2014
- Dr. Vipin Tyagi attended and chaired a session on Cyber Forensics during CSI 49th annual Convention at JNTU, Hyderabad during December 12-14, 2014
- Dr. Vipin Tyagi attended and chaired a session during IC3T-2015 at CMR Technical campus, Hyderabad during July 24-26, 2015
- Dr. Vipin Tyagi attended and chaired a session during ICICT at Udaipur during October 9-10, 2015.

Mahesh Kumar

- Dr. Mahesh Kumar delivered invited lecture on “Security Issues in Internet Routing”, in 9th J-NOST Conference organized by at Indian Institute of Science Education and Research (IISER) Bhopal. December 06-06, 2013
- Dr. Mahesh Kumar attended a 10 days’ workshop on “Information Security on Virtual Training Environment (VTE)”, Jan.15- 24, 2013. Organized by DIT,C-DAC,NIELET, ISEA Lab New Delhi
- Dr. Mahesh Kumar attended a 5 days workshop on Wireless Sensor Networks, from July 5-9, 2011. Organized by Jaypee University of Information Technology, Wagnaghat, H.P. With Indo-US Collaboration for Engg Education
- Dr. Mahesh Kumar has presented a paper titled as “Comparative Analysis of Congestion Control Algorithm, in International Conference (ICTTM 2015) organized by Bharti School of Telecommunication Technology and Management Indian Institute of Technology Delhi, April 11-12, 2015.

Harikesh Singh

- Dr. Harikesh Singh has attended IUCEE workshop on “Distributed Operating System” at IIIT, NOIDA, U.P., India during June 27- July 3, 2010

- Dr. Harikesh Singh has attended Language of Scientific Writing (LSW2010) workshop on “LaTeX” in ABV-IIITM, Gwalior, M.P., India during September 4-5, 2010
- Dr. Harikesh Singh has attended IUCEE workshop on “Parallel Computing & Programming” at K. G. Reddy College of Engineering, Hyderabad, A.P., India during July 11-15, 2011.
- Dr. Harikesh Singh has presented a paper titled as “Analysis & Design of Efficient Grid FTP Architecture for Web Servers”, in proceeding of 28th M. P. Young Scientist Congress organized by M. P. Council of Science and Technology, Bhopal, M.P., India, February 28 – March 1, 2013, pp.41.
- Dr. Harikesh Singh has presented a paper titled as “A Framework for Modified Architecture of Grid Simulators”, proceeding of Advance Computers and Networks (ADCONS2011), organized by NITK, Surathkal, Karnataka, India during December 16-18, 2011, vol.1, pp.27-31.
- Dr. Harikesh Singh has presented a paper titled as “Task Oriented Performance Monitoring of Distributed Computing Server”, presented in International Conference on “Advances in Communication, Embedded System and Computing (ICACEC)” organized by SIRTE, Bhopal, MP, India, January 14-15, 2011, pp.166-171.
- Dr. Harikesh Singh has presented a paper titled as “Performance Analysis of Distributed Computing Server”, presented on Emerging Trends in Computer Science & Informatics (ETCSI'10)”, National Conference of MPCST & IETE, SIRT, Bhopal, MP, India, March 19-21, 2010, pp.29.

Neeraj Rathore

- Neeraj Rathore Attended “National workshop cum training programme on computer techniques and applications” organized by DST-centre of interdisciplinary mathematical science (CIMS) at Banaras Hindu University (BHU) Varanasi (U.P.), India from July 01-07, 2012
- Neeraj Rathore Attended Tutorial Classes in the World Congress on information and communication Technology (WICT 2011) organized by University of Mumbai, Mumbai, India from 11-14 Dec 2011

- Neeraj Rathore Attended the course on “Parallel and Distributed Computer” as part of Indo-US collaboration for Engineering Education (IUCEE) at Jaypee University of Information & Technology, Wagnaghat (H.P.), India by Prof. Yalle patt (University of Texas at Austin), Prof. Sukumar Ghosh (University of Iowa, USA) and Mr. Manish Gupta (Director of IBM Research - India and Chief Technologist for IBM India/South Asia) from May 23- 27, 2011
- Neeraj Kumar Rathore and Inderveer Chana, “A Sender Initiate Based Hierarchical Load Balancing Technique for Grid Using Variable Threshold Value” in International conference IEEE-ISPC, ISBN- 978-1-4673-6188-0, pp.1-6, 26-28 Sept. 2013.
- Neeraj Kumar Rathore and Inderveer Chana, “A Cogitative Analysis of Load Balancing Technique with job migration in Grid Environment”, World Congress on Information and Communication Technology (WICT), Mumbai, IEEE proceedings paper, ISBN -978-1-4673-0127-5 pp- 77-82, December 2011
- Neeraj Kumar Rathore, “Load Balancing Algorithm for Grid” in 30th M.P. Young Scientist congress, Bhopal, M.P., pp-56, Feb 28, 2015.
- Neeraj Kumar Rathore, “An Efficient Hierarchical Load Balancing Technique for Grid” in 29th M.P. Young Scientist congress, Bhopal, M.P., pp.55, Feb 28, 2014
- Neeraj Kumar Rathore and Inderveer Chana, “Fault Tolerance Algorithm in Alchemi.NET Middleware”, National Conference on Education & Research (ConFR10), Third CSI National Conference of CSI Division V, Bhopal Chapter, IEEE Bombay, and MPCST Bhopal, organized by JUIT, India, 6-7th Mar 2010.

Amit Kumar

- Dr. Amit Kumar participate in the “International Conference on Contemporary Computing (IC3-2010)” organized by Jaypee Institute of Information Technology, Noida (August 09-11, 2010).
- Dr. Amit Kumar attended a Faculty Development program on “Soft Computing with MATLAB” organized by ITM University, Gwalior, June 22-24, 2015

- Dr. Amit Kumar has presented a paper titled as “A Framework for Stability and Security of An Operating System Through Process level” in the 4th International Conference ICACCT – 2010, organized by APIIT on November 30 - 10, 2010.
- Dr. Amit Kumar has presented a paper titled as “ Genetic Algorithm Approach for Non-self OS Process Identification ” in the Third International Conference on Soft Computing for Problem Solving (SocProS 2013), organized by IIT Roorkee, Greater Noida center. Dec 2013.

Prateek Pandey

- Dr. Prateek Pandey delivered invited lecture on “New Trends in Software Development & Technology-2010”, in a one day workshop organized by NRI Institute of Technology & Management, Gwalior, Madhya Pradesh, October 23, 2010.
- Dr. Prateek Pandey attended National Workshop on “Deployment & Use of NPTEL Courses”, jointly organized by IIT Kanpur & PDPMIITDM Jabalpur at PDPMIITDM Jabalpur, during the March 31- April 1, 2012.
- Dr. Prateek Pandey attended IUCEE Workshop on “Teaching Engineering Using Matlab & Simulink” at JECRC, Jaipur, Rajasthan, during the July 5 – 7, 2011.
- Dr. Prateek Pandey attended Faculty Development Programme on “Case Method of Teaching in B-schools” at ABV-IIITM, Gwalior, during the December 26-27, 2010.
- Dr. Prateek Pandey has presented a paper titled as “Time Series Forecasting with Fuzzy and Neural Network: A Comparative Study using Sugar Production Data” in International Conference on Electronic Communication & Instrumentation (e-Manthan) organized SR. Group of Institutions Jhansi, Uttar Pradesh, during the April 6-7, 2012.
- Dr. Prateek Pandey has presented a paper titled as “Time Series Forecasting Using Fuzzified Data: A New Paradigm” in Proceeding of AICTE Sponsored National Conference on Advances in Information & Communication Technology organized by Madhav Institute of Technology and Science, Gwalior during the October 28-29, 2013.

Ratnesh Litoriya

- Dr. Ratnesh Litoriya, has presented a paper titled as “Implementation of Relational Algebra interpreter using another query language” in proceeding of International Conference on Data Storage and Data Engineering (DSDE 2010) organized by IEEE at Bangalore during, February 9-10, 2010.
- Dr. Ratnesh Litoriya, has presented a paper titled as “Security issues in E-Business using security services as Web Services: A survey” in proceeding of Fourth International Conference on Managing the New World Order : Strategies for Sustainable Business Development organized by PIMR Indore (M.P.) during, January 30-31, 2010.
- Dr. Ratnesh Litoriya, has presented a paper titled as “Mobile Networking Through Mobile IP: A Survey” in proceeding of International Conference on Trends and Advances in Computation and Engineering organized by Barkatullah University Institute Of Technology, Bhopal (M.P.) during, February 25-26, 2010.
- Dr. Ratnesh Litoriya, has published a paper titled as “A Novel Approach to Calculate the Severity and Priority of Bugs in Software Projects” in proceeding of The 2010 International Conference on Education Technology and Computer Organized by IACSIT & IEEE Society at Shanghai, China during, June 22-24, 2010
- Dr. Ratnesh Litoriya, has published a paper titled as “Empirical Analysis of Ethical Issues in the Era of Future Information Technology” in proceeding of The 2010 2nd International Conference on Software Technology and Engineering (ICSTE 2010) organized by IACSIT in collaboration with IEEE at San Juan, Puerto, Rico, USA during, Oct 03-05, 2010.
- Dr. Ratnesh Litoriya, has presented a paper titled as “Incorporating Cost Driver Substitution to Improve the Effort using Agile COCOMO II” in CSI 6th International Conference on Software engineering , Technically Sponsored by IEEE organized by DAVV in collaboration with IEEE at Indore (M.P.), India during, Sept 05-07, 2012.

Ajay Kumar

- Mr. Ajay Kumar participated in Advanced Data Mining, Fusion and its Biomedical Application, from 31st August-1st September, 2010 at JUIT, Wagnaghat.

- Mr. Ajay Kumar participated in workshop organized by IUCEE on “Data Mining” from 11-07-2010 to 16-07-2010 at Chadalawada Ramanama, Tirupati.
- Mr. Ajay Kumar participated in “Uni-Sim Design Simulation Software” from Dec 15 to Dec 17, 2010 at Honeywell, Pune.
- Mr. Ajay Kumar participated in IUCEE Workshop on “Teaching Engineering Using Matlab & Simulink” organized by JECRC, Jaipur (Rajasthan), scheduled during 5th to 7th July 2011.
- Mr. Ajay Kumar participated in IUCEE Workshop on “Teaching Engineering Using Matlab & Simulink” organized by JECRC, Jaipur (Rajasthan), scheduled during 5th to 7th July 2011.

Ravindra Kumar Singh

- Ravindra Kumar Singh presented a paper titled as Maximizing Fault Tolerance and Minimizing Delay in Virtual Network Embedding using NSGA-II in Third International Symposium on Women in Computing and Informatics WCI'15, Kochi, India, August 10-13, 2015.
- Ravindra Kumar Singh presented a paper titled as Integrated Load Balancing Approach for Fault Tolerance in MPLS Networks in International Conference on Communication Systems and Network Technologies (CSNT), Gwalior, India, April 6-8 2013, 2013.
- Ravindra Kumar Singh presented a paper titled as Enhanced traffic aware LSP selection method in MPLS networks in Ninth IEEE International Conference on Wireless and Optical Communications Networks (WOCN), Indore, India, Sept. 20-22 ,2012.

Neelesh Kumar Jain

- Neelesh Kumar Jain participated in One Day Workshop on “Wireless Communication” organized by School of ICT, Gautam Buddha University, Greater Noida, on 20th April, 2011.
- Neelesh Kumar Jain participated in Two Week ISTE STTP on Introduction to Design of Algorithms, 25th May - 30th May, 2015, organized by National Mission on Education through ICT (MHRD, Govt. of India).

Dinesh Kumar Verma

- Dinesh Verma has attended workshop on “2011 Learn Six Sigma International Convention “organized by Dr. Merri Channa Reddy HRD Institute, Hyderabad during 26 - 27th Feb, 2011.
- Dinesh Verma has attended workshop on “Software Reliability and Testing” organized by Guatam Buddha University, Greater Noida during 2-3 Sep, 2011.
- Dinesh Verma has attended the National Conference of 28th M. P. Young Scientist Congress in Bhopal, during February 28–March 01, 2013.
- Dinesh Kumar Verma has presented a paper titled as “Minimization of Defect Density with respect to module size” In proceeding of 28th M. P. Young Scientist Congress, Bhopal, pp 40, February 28–March 01, 2013.

Nileshkumar R. Patel

- Nileshkumr R. Patel attended IEEE sponsored two weeks International workshop/Summer Course on Advanced Data structures and Algorithms held at Thapar University, Patiala, Punjab during June 4-15, 2012. (Conducted by Dr. Deepak Garg from Thapar University)
- Nileshkumr R. Patel attended 1 week Workshop on Data Mining and Parallel Computing (DMPC-2011) held at Jaypee University of Information Technology (JUIT), Wanknaghat, Himachal Pradesh, during Aug 2-5, 2011. (Conducted by Prof. Sanjay Ranka, University of Florida)
- Nileshkumar R. Patel has presented paper - Digital receipt: A viable replacement for the printed receipts on thermal papers, at 5th International conference on IT and Business Intelligence(ITBI-2013), Dec. 13-14,2013, Guna.

Amit Kumar Srivastava

- Amit Kumar Srivastava has presented a paper titled as “Automation in Cloud Computing uses Constraint Based Agent” in International Conference on Computing, Communication & Automation (ICCCA-2015) organized by Galgotia University, Greater Noida, May 15-16, 2015.
- Amit Kumar Srivastava has presented a paper titled as "Plugging DHCP Security Holes Using S-DHCP." Advances in Computing and Information Technology. Springer Berlin Heidelberg, 2012. 227-238.

List of Faculty serving in various committees

Shishir Kumar

- **Chief Editor:** JUET Journal of Science & Technology. ISSN No. 23216026 (June 2015 onwards)
- **Guest Editor:** GAMS Journal of Mathematics. 2010
- **Editorial Board Member:** Pragyan: Journal of Information Technology. (Continued)
- **Editorial Board Member:** International Journal of Information Technology and Knowledge Management. ISSN No. 09734414. (Continued)
- **Editorial Board Member:** International Journal of Computational Intelligence and Information Security. ISSN No. 18377823. (Continued)
- **Editorial Board Member:** International Journal of System & Software Engineering. ISSN No. 2321-6017. (Continued)
- **Editorial Board Member:** International Journal of Computer and Communication System Engineering. ISSN No. 23127694. (Continued)
- **Editorial Board Member:** Journal of Computing. ISSN No. 21519617. (Continued)
- **Editorial Board Member:** International Journal of Computer Applications. ISSN No. 0975 – 8887. (Continued)
- **Editorial Board Member:** International Journal of Computer Science Issues. ISSN No. 0975-9646. (Continued)
- **Programme Committee Member:** The Fourth International conference on Parallel, Distributed Computing and Applications (IPDCA 2015).
- **Advisory Committee & Technical Programme Committee Member:** IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics (UPCON-2015).
- **Technical Programme Committee Member:** 1st International Conference on "Next Generation Computing Technologies" (NGCT-2015).
- **Technical Programme Committee Member:** International Symposium on Ensemble Networks and Software Engineering (SENSE-2015)

- **Publicity Co-Chairs and member TPC:** The Eighth International Conference on Contemporary Computing (IC3-2015), IEEE Conference Record Number: 36493Jaypee Institute of Information Technology, NOIDA, India, <http://www.jiit.ac.in/jiit/ic3/>, jointly organized by JiIT Noida and University of Florida.
- **Technical Programme Committee Member:** 2nd IEEE International Conference on Advances in Computing & Communication Engineering (ICACCE-2015), Dehradun, India.
- **Technical Programme Committee Member:** International Conference on Computational Intelligence and Communication Networks (CICN 2014), MIR Lab Bhopal.
- **Technical Programme Committee Member:** Second IEEE International Symposium on Knowledge-intensive Software Engineering (KiSE'14), GCET, Greater Noida.
- **Technical Programme Committee Member:** International Conference on Softcomputing Techniques for Engineering & Technology (ICSCTET-2014) at Graphic Era Hill University Bhimtal Campus, Almora.
- **Publicity Co-Chairs and member TPC:** IEEE- IC3-2014, International conference on contemporary computing, Jointly organized by JiIT Noida and University of Florida IEEE Conference record number # 34056 .
- **Technical Programme Committee Co-Chair:** International Conference on Advances in Computing & Communication Engineering (ICACCE-2014) at BTKIT, Dwrahat, Almora India.
- **National Advisory Board Member:** Third International Conference on Soft Computing for Problem Solving (SocProS 2013) organized by IIT Roorkee at Saharanpur Campus).
- **Technical Programme Committee Member:** 5th International Conference on Information Technology & Business Intelligence (ICITBM-2013).
- **Publicity Co-Chairs and member TPC:** 6th IEEE- IC3-2013, International conference on contemporary computing, Jointly organized by JiIT Noida and University of Florida IEEE Conference record number # 31296.
- **Technical Programme Committee Member:** Third International Conference on Soft Computing for Problem Solving (SocProS 20123) organized at JKL University, Jaipur Rajasthan.

- **Organizing Secretary:** 17th Annual Conferences of GAMS and National Symposium Computational Mathematics & Information Technology.
- **Coordinator organizing committee:** 3rd International Symposium on Emerging Trends and Technologies in Libraries and Information Services (ETTLIS).
- **Chairperson , Organizing committee:** ConfER 2010 , 3 rd National Conference on Education & Research of Computer Society of India
- **Technical Programme Committee Member:** International Conference on Business, Economics, Management, Social Sciences, Art and Humanities (BEMSAHIC 2016) in Ural Federal University, Yekaterinburg, Russia.
- **Technical Programme Committee Member:** 5th International Conference on Operations Research and Enterprise Systems” ICORES- 2016, Rome , Italy.
- **Technical Programme Committee Member:** 5th International Conference on Information Technology & Business Intelligence (ICITBM-2013).
- **Technical Programme Committee Member:** International Conference on Information in Business and Technology Management (I2BM).
- **Technical Programme Committee Member:** 2015 International Conference on Education, Management and Systems Engineering, EMSE2015 Phuket, Thailand .
- **Technical Programme Committee Member:** ISRADH 2014 (2014 International Symposium on Research of Arts, Design and Humanities (ISRADH 2014)), Selangor, Malesia.
- **Technical Programme Committee Member:** AIC '07, “The 7th WSEAS International Conference on Applied Informatics & Communications”, Athens, Greece.
- **Review Board Member:** 5th International Conference on Communications, Networking and Information Technology (MIC-CNIT 2011), Dubai.
- **Convener Organizing Committee:** 3rd National Workshop On Advancements In Network Communication & Security (ANCS-2015), Sponsored by MPCST and CSI.
- **Convener Organizing Committee:** 2nd International Workshop on “Intelligent Approaches for Object Oriented Modelling in Component Based Software Engineering”.

- **Convener Organizing Committee:** National Workshop on Advancements in Network Communication & Security, Sponsored by MPCST and CSI.
- **Organizing Secretary:** International Workshop on “Intelligent Approaches for Object Oriented Modeling in Component Based Software Engineering”.
- **Organizing Secretary:** National Workshop On Advancements In Network Communication & Security, Sponsored by MPCST and DRDO.
- **Organizing Secretary:** International Workshop on Application Oriented Networking – Chief Invited Speaker Prof. Laxmi Narayan Bhuyan, Distinguished Professor & Chair, Department of Computer Science and Engineering, University of California, Riverside (USA).
- **Coordinator Organizing Committee:** IUCEE Workshop 2012 on "Renewable Energy.
- **Organizing Secretary:** International workshop on on Distributed Systems and Computer Security - Chief Invited Speaker Prof. Partha Dasgupta of Arizona State University, USA.
- **Coordinator Organizing Committee:** Workshop on "Image Processing and Digital Communications”.
- **Coordinator Organizing Committee:** IUCEE Workshop on "NUMERICAL METHODS”.
- **Organizing Secretary:** Workshop on Java Androids & Web Technologies in collaboration with Computer Society of India and Sun Microsystem. 2010.
- **Organizing Secretary:** International workshop on Computer System Performance Analysis. Chief Invited Speaker- Prof. Raj Jain of Washington University St Louis .(USA) 2010.

Vipin Tyagi

- **Guest Editor:** CSI Communications, ISSN 0970-647X, since May-2015.
- **Convener:** Special Interest Group on Cyber Forensics Computer Society of India 2010 onwards.
- **Technical Program Chair:** 2nd International IEEE Conf on Image Processing at JUIT, Wanaghat – 2011.
- **Member:** Organizing Committee IC4SD 2015, Ahmedabad, organized by CSI and ASSOCHAM - 2015

- **Member:** Apex Committee - ICTIS 2015, Ahmedabad organized by CSI – 2015.
- **Member:** National Advisory Committee - ICICT - 2015 at Udaipur organized by CSI and ACM – 2015.
- **Member:** Advisory Committee - ICCN at Gwalior organized by IEEE, 2015.

Amit Kumar

- **Editorial Board Member:** International Journal of Computer Application (IJCA), ISSN 0975-8887, for 2010 to June 2015
- **Editorial Board Member:** Journal of Computer Science, ISSN: 1549-3636, 2010 to Dec 2014.
- **Member of Reviewer committee:** 3rd IEEE International Advance Computing Conference (IACC-2013)
- **Reviewer on the technical program committee:** International Conference on Computational Intelligence and Communication Networks (CICN 2013).

Mahesh Kuamr

- **Editorial Board Member:** JUET Research Journal of Science & Technology, ISSN No. 23216026 since Jan 2014.

Harikesh Singh

- **Technical Program Committee Member:** IEEE UP Section Conference on Electrical, Computer and Electronics (December 4-6, 2015) organized by Indian Institute of Information Technology Allahabad - 211012, India

Ajay Kumar

- **Technical Programme Committee Member:** IEEE International Conference on Computing Communication and Automation (ICCCA2015), IEEE Conference Record No #36179, School of Computing Science and Engineering, Galgotias University Uttar Pradesh, India, 15th -16th May, 2015.

Prateek Pandey

- **Editorial Board Member:** International Journal of Knowledge Engineering & Technology, ISSN No. 0976-5487.
- **Technical Programme Committee Member:** IEEE International Conference on Computing Communication and Automation (ICCCA2015), IEEE Conference Record No #36179, School of Computing Science and Engineering, Galgotias University Uttar Pradesh, India, 15th -16th May, 2015.

Dinesh Verma

- **Technical Programme Committee Member:** IEEE International Conference on Computing Communication and Automation (ICCCA2015), IEEE Conference Record No #36179, School of Computing Science and Engineering, Galgotias University Uttar Pradesh, India, 15th -16th May, 2015.

Ratnesh Litoriya

- **Technical Programme Committee Member:** IEEE International Conference on Computing Communication and Automation (ICCCA2015), IEEE Conference Record No #36179, School of Computing Science and Engineering, Galgotias University Uttar Pradesh, India, 15th -16th May, 2015.

Nileshkumar R. Patel

- **Technical Programme Committee Member:** IEEE International Conference on Computing Communication and Automation (ICCCA2015), IEEE Conference Record No #36179, School of Computing Science and Engineering, Galgotias University Uttar Pradesh, India, 15th -16th May, 2015.

Ashish Gupta

- **Member:** Wireless Mobile Network and Applications, Chennai, India, June 2014
- **Member:** Information Technology, Control and Automation, Zurich, Switzerland in June 2014.

- **Member:** Computation Science, Engineering and Information Technology, Vienna, Austria in May 2014
- **Member:** International Conference on Advance in Computing, Communications and Informatics in Sep 2014.
- **Member:** International Association of Engineers.

Kunj Bihari Meena

- **Technical Programme Committee Member:** IEEE International Conference on Computing Communication and Automation (ICCCA2015), IEEE Conference Record No #36179, School of Computing Science and Engineering, Galgotias University Uttar Pradesh, India, 15th -16th May, 2015.