Track ID: MPUNGN11402

Volume-3

EVALUATIVE REPORT

DEPARTMENT OF CIVIL 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 : Civil Engineering. (CE)
- **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 Civil Engineering.

- 4. Names of programmes offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., D.Sc., D.Litt., etc.)
 - (i) Ph.D. (Full-time/Part-time)
 - (ii) P.G. M.Tech. (Structural Engineering, Environmental Engineering, Geotechnical Engineering),
 - (iii) U.G. B.Tech. (Civil Engineering),- Diploma (Civil Engineering),

5. Interdisciplinary programmes 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, Chemistry and Physics. Beyond these core courses there are many interdisciplinary elective are being offered to these students.

Some courses are also run by departments to all other discipline of the B. Tech. program.

Following are the number of credits and percentage of courses taken by other departments of the university in programs offered by CSE departments.

	Total	ECE	1	CSE		Mec	h	Cher	nistry	HSS		Mat	hs	Phys	sics
Course	Credits	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
B. Tech.	195	5	2.5	6	3.0	1	0.5	5	2.5	24	12.3	12	6.1	5	2.5
M. Tech.	76	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	3.9	0	0.0
Diploma	147	5	3.40	2	1.36	2	1.36	10	6.80	6	4.08	8	5.44	10	6.80
															1

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

In B. Tech. 3rd year, the students are selected on the merit basis for the final year study at the University of Florida, USA; every year. The selected students do their final year courses including the projects at the University of Florida under the credit transfer scheme.

7. Details of programmes discontinued, if any, with reasons:

Name of programme	Specialilized area	Year (discontinued / re-named or modified)	Reason for discontinue		
Diploma	Civil	2015	Decreased demand of industry		
(3 year)	Engineering		specific programme.		

8. Examination System: Annual/Semester/Trimester/Choice Based Credit 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 given 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. Ttests/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 1/2	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. c. Laboratory record	(40%) (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/ Defense/ Dissertation	20% awarded by a panel of three teachers including Supervisors. In case of M. Tech. Programs, External examiner being a part of the panel

S. No.	Beneficiary Department	Course Name				
	Program					
1.	All branches of B. Tech. program	Environmental Legislation & Auditing				
		(Elective)				
2.	All branches of B. Tech. program	Disaster Management and Mitigation				
		(Elective)				
3.	All branches of B. Tech. program	Environmental Management & Impact				
		Assessment (Elective)				
4.	B. Tech Chemical Engineering	Industrial Waste Treatment (Elective)				
5.	All branches of B. Tech. program	Energy Resources & Conservation				
		(Elective)				
6.	All branches of B. Tech. program	Environmental Studies (Core)				

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

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

Positions	Sanctioned	Filled	Actual (including CAS and MPS)
Professor	2	01	
Associate Professor	4	00	
Assistant Professor (SG)		03	
Assistant Professor (G-II)	15	07	
Assistant Professor (G-I)		02	
Teaching Assistants	-	02*	

* Full-time M. Tech. Students

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

Name	Qualification	Designation	Specialization	Years of	No. of Ph.D./ M.Phil. students
				Experience	guided for the last 4
					years
Prof. S.	Ph.D	Dean (A&R) and	Structural	32	Ph.D. Supervision-
Arunachalam		HOD	Engineering		Completed: Nil
					Ongoing: Nil
					M.Tech. Guidance -
					Completed: Nil

Dr. Sumit	Ph.D.	Assistant	Water	10	Ph.D. Supervision-
Gandhi		Professor (SG)	Resources		Completed: Nil
			Engineering		Ongoing: Nil
					M.Tech. Guidance -
					Completed: Nil
Dr. Nitin	Ph.D.	Assistant	Water	10	Ph.D. Supervision-
Kumar Samaiya		Professor (SG)	Resources		Completed: Nil
			Engineering		Ongoing: 02
					M.Tech. Guidance -
					Completed: Nil
Dr. Kanchan	Ph.D.	Assistant	Structural	8	Ph.D. Supervision-
Mala		Professor (SG)	Engineering		Completed: Nil
					Ongoing: Nil
					M.Tech. Guidance -
					Completed: Nil
Mr.	M. Tech.	Assistant	Geotechnical	11	M.Tech. Guidance -
Dharmendra		Professor (G-II)	Engineering		Completed: Nil
Kumar Shukla					
Mr. Krishna	M. Tech.	Assistant	Structural	11	M.Tech. Guidance -
Murari		Professor (G-II)	Engineering		Completed: 01
Dr. V. S. Babu	Ph.D.	Assistant	Highway	12	Ph.D. Supervision-
		Professor (G-II)	Engineering		Completed: Nil
					Ongoing: Nil
					M.Tech. Guidance -
					Completed: Nil
Mr. Ravindra	M. Tech.	Assistant	Structural	07	M.Tech. Guidance -
Kumar Goliya		Professor (G-II)	Engineering		Completed: 01
Mr. Shiva	M. Tech.	Assistant	Environmental	04	M.Tech. Guidance -
Shankar		Professor (G-II)	Engineering		Completed: 01
Mr. Anuj	M. Tech.	Assistant	Highway	03	M.Tech. Guidance -
Kumar Yadav		Professor (G-II)	Engineering		Completed: Nil
Mr. Abhishek	M. Tech.	Assistant	Structural	04	M.Tech. Guidance -
Verma		Professor (G-II)	Engineering		Completed: Nil
Mr. Yogesh	M. Tech.	Assistant	Structural	10	M.Tech. Guidance -
Iyer Murthy		Professor (G-II)	Engineering		Completed: 01
Mr.	M. Tech.	Assistant	Geotechnical	02	M.Tech. Guidance -
Shrinarayan		Professor (G-II)	Engineering		Completed: Nil
Yadav					

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

Dr. A. K. Mullick, former Director General, National Council of Cement and Building Materials (NCCBM) New Delhi.

- **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 23:1
 - For the M.Tech. program the student teacher ratio is 8:1
 - For the Diploma. program the student teacher ratio is 44 : 1

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

	Sanctioned	Filled	
Technical	5	5	
Administrative	Centrally managed at University level		

16. Research thrust areas as recognized by major funding agencies:

Not yet

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.

Not yet.

18. Inter-institutional collaborative projects and associated grants received

a) National collaboration- (without grants/funds)

S. No	Faculty name	Research Collaborator affiliation	Research Area	Outcome of Collaboration
1	S.Arunachalam Director, JP- WINCENTRE	 R.G.J Flay, University of Auckland, New Zealand. Prem Krishna, P. K.Pande Formerly Prof. & Head of Civil Engg.,IIT,Roorkee Abhay Gupta, ESCOM Consultants Pvt. Ltd., Noida 	Wind tunnel	consultants for establishing the BLWT
2	N. K. Samaiya	• N. K. Khullar, PAU Ludhiana	Sediment transport	Publications-6

b) International collaboration (without grants/funds): - Nil

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

Not yet

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:

Number of papers published in peer reviewed journals (national / international) Annexure-I/CE:

I. Summary Report

Category	2015	2014	2013	2012	2011	2010	Total publications
International Journals	3	11	12	4	6	9	45
National Journals	1	4	1	1	0	1	08
International	2	7	7	3	13	3	35
Conferences							
National Conferences	0	1	4	5	14	4	28

II. Other Publications

Category	Numbers
Monographs	0
Books in Chapters	2
Edited Books	0
Books with ISBN	3

III. Journals Indexed in SCOPUS/SCI/Others

Category	SCOPUS	SCI	Others	Total
International	16	9	20	45
National	5	0	3	8

IV. Citation Index

Indexing parameter	Details	
Google citations	Range:0-9	
	Average:1.358	
SNIP	Range: 0-2.278	
	Average: 0.345	
SJR	Range: 0-1.864	
	Average:0.238	
Impact Factor	Range: 0-1.864	
	Average:0.168	
h-index	Range: 0-69	
	Average:7.378	

23. Details of patents and income generated:

Not yet

24. Areas of consultancy and income generated:

Area of Consultancy	Income Generated (₹ in lakh)
Soil Testing	3.46158
Highway Testing	0.50045
Concrete Testing	2.73698
Total = ₹ 6.699011akh	

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

Most of the faculty members of the department have visited laboratories, institutions, and industries in India and abroad. Details of faculty members visit in India and abroad given in Annexure-II/CE.

26. Faculty serving in

a) National committees

Name of Faculty	Details
Dr. S. Arunachalam	 Member - National Steering Committee (for National Cyclone Risk Mitigation Project, Government of India), Ministry of Home Affairs. Member - National Disaster Management Authority, Government of India Nodal Principal Coordinator - Formation of India Disaster Knowledge Network (IDKN), National Institute of Disaster Management

• Member - Panel for Wind Loads, CED 37/P:4/A-1, BIS
• Convenor and Principal Member - Special Structure Sectional
Committee, CED 38/BIS
• Principal Member - Panel for Industrial Buildings, CED
46(Sub)/BIS
• Expert Member - Monitoring Committee for Progress of DST
project, M.I.T. Anna University.
• Member - Board of Studies, Annamalai University,
Chidambaram
• Member - Research Council – CRRI, New Delhi
• Member - National Advisory/ Technical Committees on
National Conferences on Wind engineering (2012 and 2014)

b) International committees

Name of Faculty	Details
Dr. S. Arunachalam	• Member - Scientific Committee, 7 th International Symposium on Environmental Effects on Buildings and People, Poland

c) Editorial Board Member

Name of Faculty	Details	
Dr. S. Arunachalam	Journal of Wind and Engineering	
Mr. D. K. Shukla	JUET Research Journal of Science and Technology (2015	
	onwards)	
Dr. N. K. Samaiya	JUET Research Journal of Science and Technology (2014-	
	2015)	

27. Faculty recharging strategies (UGC, ASC, Refresher / orientation programs, workshops, training programs and similar programs): Workshops, short-term courses. Seminars conducted and promoted to attend.

To recharge the faculty, Department organizes conferences, workshops, seminars, expert talks, refresher courses, faculty development programs, etc., at JUET. In addition, faculty members also participate in these activities outside JUET.

The academic activities organized at the Institute are listed below:

Workshops/ Conferences/ FDP:

S. No.	Title	Dates/ Duration	Sponsoring Agency and Organization & Place held
1	Workshop on Testing of Soil and Highway Materials	October 21-22, 2012	JUET
2	National Conference- ESS-13	March 30-31, 2013	JUET
3	Training Course on Cement and Concrete Technology	January 10-11, 2011	Shree Cement Ltd. Beawar, Rajasthan
4	RACE – InD 2011, National Conference	December 21-22, 2011	CSIR Oriental Bank of Commerce and JUET,
5	Training Course on Cement and Concrete Technology	November 22-23, 2012	JUET
6	Training Course on Cement and Concrete Technology	November 26-29, 2012	JUET
7	Training Course on Cement and Concrete Technology	November 28-29, 2012	JUET
8	Seven Weeks Training Course on Cement and Concrete Technology	June 01 - July 19, 2011	JUET
9	Training Course on Cement and Concrete Technology	November 15, 2010 to November 20, 2010	JUET
10	Seven Weeks Training Course on Cement and Concrete Technology	November 08 - December 25, 2010	JUET
11	Seven Weeks Training Course on Cement and Concrete Technology	January 11 - February 27, 2010	JUET
12	National Workshop on Testing of Concrete	August 22, 2010	JUET

28. Student projects

• Percentage of students who have done in-house projects including interdepartmental projects:

100 % students have in-house projects each year since 2010 till date.

• Percentage of students doing projects in collaboration with other Universities /industry / institute:

Almost Nil

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

• Faculty

S. Arunachalam	FNAE award by Indian National Academy of Engineering for Contributions in the field of civil engineering and wind engineering w.e.f. January 01, 2014.	
Krishna Murari	Best Paper award by 3 rd International Conference on Recent Trends in Science and Technology IC-RTST 2015 held at SVNU Sagar during February 27-28, 2015.	

• Doctoral / post doctoral fellows :

Not yet.

• Students

Name of students	Details
Chaitanya R. Goyal (B.Tech. Student)	 Article on 'Eco Trends for 'Greener' homes: Insulation' published in 'The Masterbuilder' India's premier construction magazine, pp. 216 – 222. 2012 Attended and presented the work in 4th KKU - International Engineering Conference, (KKU-IENC2012), May 10 – 12, 2012, Thailand.
Sudhir Jain (B.Tech. Student)	• Secured 6th position in Junior men under 75 kg body building. 4th WBPF World Championship held at Bangkok, Thailand during December, 04-12, 2012
Gaurav Gupta (B.Tech. Student)	• Selected in Build India scholarship conducted by Larsen & Turbo.

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

S.No.	Details
1.	Title: Workshop on Testing of Soil and Highway Materials
	Dates/ Duration: October, 21-22, 2012
	Source of Funding: JUET
2.	National Conference- ESS-13
	Dates/ Duration: March 30-31, 2013
	Source of Funding: JUET
3.	Training Course on Cement and Concrete Technology held at Shree Cement
	Ltd. Beawar, Rajasthan, organized with Department of Chemical Engineering
	Dates/ Duration: January 10-11, 2011
	Source of Funding: Shree Cement Ltd. Beawar, Rajasthan
4.	RACE – InD 2011, National Conference
	Dates/ Duration: December 21-22, 2011
	Source of Funding: CSIR OBC and JUET
5.	Training Course on Cement and Concrete Technology organized with
	Department of Chemical Engineering
	Dates/ Duration: November 22-23, 2012
	Source of Funding: JUET
6.	Training Course on Cement and Concrete Technology organized with
	Department of Chemical Engineering
	Dates/ Duration: November 26-29, 2012
	Source of Funding: JUET
7.	Training Course on Cement and Concrete Technology organized with
	Department of Chemical Engineering
	Dates/ Duration: November 28-29, 2012
	Source of Funding: JUET
8.	Seven Weeks Training Course on Cement and Concrete Technology organized
	with Department of Chemical Engineering
	Dates/ Duration: June 01 - July 19, 2011
	Source of Funding: JUET
9.	Training Course on Cement and Concrete Technology
	Dates/ Duration: November 15 - 20, 2010
	Source of Funding: JUET
10.	Seven Weeks Training Course on Cement and Concrete Technology organized
	with Department of Chemical Engineering
	Dates/ Duration: November 08- December 25, 2010
	Source of Funding: JUET

11.	Seven Weeks Training Course on Cement and Concrete Technology organized				
	with Department of Chemical Engineering				
	Dates/ Duration: January 11- February 27, 2010				
	Source of Funding: JUET				
12.	National Workshop on Testing of Concrete				
	Dates/ Duration: August 22, 2010				
	Source of Funding: JUET				

31. Code of ethics for research followed by the departments

Code of ethics for research is defined by norms of conduct that distinguish between acceptable and unacceptable research. The Department follows the University code of research ethics.

32. Student profile programme-wise:

Name of the Program	Applications	Sel	Selected		Pass percentage	
(refer to question no. 4)	received *	Male	Female	Male	Female	
B.Tech.						
2006-2010	*****	25	02	25(100)	02(100)	
2007-2011	22229	35	00	35(100)	-	
2008-2012	32017	26	01	26(100)	01(100)	
2009-2013	31210	63	01	61(96.8)	01(100)	
2010-2014	26150	62	04	55(88.7)	04(100)	
2011-2015	*****	86	01	84(97.67)	01(100)	
M.Tech.		-	-		-	
2010-2012	*****	03	0	3(100)	-	
2011-2013	*****	02	0	2(100)	-	
2012-2014	*****	01	0	1(100)	-	
2013-2015	*****	-	-	-	-	
Diploma		-	-		-	
2013-2016	*****	25	0	Yet to pass	Yet to pass	
2014-2017	*****	17	0	Yet to pass	Yet to pass	
Ph. D.			•	-		
				Nos. awarded:	2(1M,1F)	
Up to 2015	****	03		Nos. Continuing:	2(2M, 0F)	
				Nos. Discontinued :	Nil	

33. Diversity of students

Year of Admission	Name of the programme	% 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
2010-14	B.Tech	NA	26 %	74 %	0
2011-15	B.Tech	NA	23 %	77 %	0
2012-16	B.Tech	NA	25 %	75 %	0
2013-17	B.Tech	NA	40 %	60 %	0
2014-18	B.Tech	NA	50 %	50 %	0
2014-16	M. Tech	20 %	85.7 %	14.3 %	0
2011-13	M. Tech	20 %	85.7 %	14.3 %	0
2012-	Ph.D	0	100 %	0	0
2014-17	Diploma	0	77.7 %	22.2 %	0
2013-16	Diploma	0	72 %	28 %	0

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

- GATE: Approx. 60 students
- GRE: Approx. 10 Students
- CAT/MAT: Approx. 10 Students
- Civil Services, Defense Services, Central Govt., and PSU Examinations: approx. 10.

35. Student progression

Student progression	Percentage	against enrolled			
UG to PG	15-20 % (Approx.)				
PG to M.Phil.		NA			
PG to Ph.D.	5 %	(Approx.)			
Ph.D. to Post-Doctoral		NA			
Employed (2014)	34 out of 42				
	Year	percentage			
	2010	115%			
Campus selection (2010 to	2011	76.67%			
2014)	2012	95.45%			
	2013	80%			
	2014	80.95%			
Other than campus recruitment	nt 20 % (Approx.)				
Entrepreneurs	NA				

36. Diversity of staff

Percentage of faculty who are graduates			
Of the same university	NIL		
From other universities within the State	23 %		
From universities from other States	77 %		
From universities outside the country	NIL		

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

- Two faculty members have been awarded Ph.D.
- 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. Kanchan Mala	Concrete Technology	2014	JUET
2	Dr. V. S. Babu	Concrete Technology	2015	JUET

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 theses 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 Theatres 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

S. No.	Name of Laboratory	Area in Sq. Mtr.
1	Geotechnical engineering laboratory	146.70
2	Highway engineering laboratory	72.37
3	Concrete technology & structural engg lab	309.60
4	Fluid mechanics laboratory	109.45

(e) Students' laboratories

5	Fluid machinery laboratory	152.79
6	Workshop technology lab (carpentry section)	118.11
7	Engineering graphics laboratory	164.44
8	Surveying laboratory	22.85
9	Environmental engineering laboratory	183.30
10	Software laboratory	105.47
	Grand total	1385.08

(f) Research laboratories:

Some of the Laboratories such as Geotechnical engineering laboratory, Concrete technology & structural engg lab are used for research purposes.

39. List of doctoral, post-doctoral students and Research Associatesa) from the host institution/university

i. From the host institutions/universities

- Doctoral Degree (Awarded)
 - 1. Dr. Kanchan Mala
 - 2. Dr. V. S. Babu
- Doctoral Degree (Pursuing)
 - 1. Mr. D. K. Shukla
 - 2. Mr. R. K. Goliya

b) From other institutions/universities

1. Mr. K. Murari

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

Two number of M. Tech. students are getting financial assistance.

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

Yes, an assessment exercise would always undertake before the development of new programme(s). In this procedure, first a tentative and superficial programme structure is floated among the faculty and staff of the department for their suggestion and modification. Once all the inputs from faculty and staff is received, a meeting has been called comprising all the faculty and staff members to finalize the shape of course curriculum. After that, it is send to academic council, and once approved from the academic council, a marathon meeting of board of studies, which discuss each and every course with its content in detail, along with the teaching methodology, will takes place. In this meeting, the syllabus of each course has been decided and finally approved to be run as a programme in the department.

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, feedback is always taken from faculty on curriculum as well as teachinglearning-evaluation. In this procedure, several meetings have been called among the faculty members to discuss the possible modification in the curriculum of the programmes offered by the department. Depending upon the inputs and suggestions received from the faculty members, the curriculum and course structure have been restructured. Also, feedbacks from faculties are requested on teaching-learningevaluation for each course. And any input received within the department is directly forwarded to the respective course coordinators.

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

A feedback system from the students on staff, curriculum and teaching-learningevaluation has already been practiced in the department and it is taken at the end of each semester, in which students are encouraged to put their view on all the above mentioned points.

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

The feedback from alumni is also taken by the department, but this primarily through the vocal conversation when they came to us and also through email when the faculty members are contacting them.

Name	Year of passing	Present Position
Ankit Gaur	2007	Project Engineer, JP Group
Ankit Gaur	2011	Texas A&M University, USA
Akash Priyadarshi	2010	Asst. Prof. NIT Jalandhar
Mohit Thakur	2010	Indian Airforce.
Ruchir Shukla	2013	Engineer, JAL (Bhutan)
Mayank Bajaj	2010	Deputy Manager, IL&FS Gurgaon
Manish Kumar	2008	Asst. Engineer, Irrigation Department, Bihar
Abhilash Shukla	2009	Asst. Prof. JUIT Waknaghat
Rahul Mehrotra	2012	Sr. Section Engineer, West-Central Railway
Akash Jain	2012	Sr. Engineer, L&T, Riyadh, Saudi Arabia

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

S. No.	Activity	No. of participa	No. of participants		
		(a)Department	(b) Outside		
		Students	students		
1	Smeaton's Challenge (Quiz)	150	0	Every Year	
2	Green Media	100	0	11/2/2013	
3	Concrete Challenge	150	0	Every Year	
4	Computer Added Design	50	0	Every Year	
5	Technical Debate	45		Every Year	
6	Clay Modeling	56		Every Year	
7	Potential Porf.	90		23 – 24 Jan 2013	
8	Truss it	150		Every Year	
9	Engineers Day Celebration	-	-	15-Sep-12	
10	Inauguration of CEF and ICI Students Chapter	-	-	18-04-2012	
11	Co-organizer of University Tech fest "DEXTRA"	300 (Approx.)	-	Every Year	

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

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

Department of Civil Engineering has a major goal to produce highly knowledgeable, competent and resourceful young engineers who can perform well in a wide variety of job profiles. To achieve this, curriculum provides a strong foundation in both the analytic and technological aspects of Civil Engineering. The Department focuses on development and strengthening system thinking, problem solving, analysis, design, research, team work, communication skills, and readiness for lifelong learning. It also provides ample opportunities to students to work on mini-projects, develop communication skills, explore internship opportunities in industries and universities and take part in national and international design contests. The Department's teaching method is research-led so that one gets to know about the latest cutting-edge technologies, and the courses combine theory with vitally important practical and project work – the chance to turn ideas into real systems.

The Department follows teaching through:

- Motivating for the program offered with respect to the current world scenario.
- Providing a balance of concrete information (facts, data, real or hypothetical experiments and their results),
- Balancing material that emphasizes practical problem-solving methods with material that emphasizes fundamental understanding,
- Following the scientific method in presenting theoretical material. Provide concrete examples of the phenomena the theory describes or predicts.
- Using pictures, schematics, graphs, and simple sketches of different Civil Engineering models liberally before, during, or after the presentation of Lectures.
- Showing films where required, providing visual demonstrations, hands-on.
- Using computer-assisted instruction.
- By not filling every minute of class time lecturing and writing on the board. Provide intervals however brief for students to think about what they have been told.
- Providing opportunities for students to do something active besides transcribing notes by forming Small-group of students for brainstorming activities.
- Assigning some instant exercises to provide practice in the basic methods being taught. Also provide some open-ended problems and exercises that call for analysis and synthesis.
- By conducting tutorials classes which is a meeting between a faculty member and a single student to discuss some work assigned by faculty member and submitted by the student. A tutorial class consists of a smaller number i.e. 30 students.
- Give students the option of cooperating on homework assignments.
- Talk to students about learning styles, both in advising and in classes.
- Explaining to struggling how they learn most efficiently may be an important step in helping them reshape their learning experiences so that they can be successful.
- Visit to construction/industrial sites

Apart from all these the department is also actively encouraging senior students to mentor their juniors in lab and also out of the working hours. Our alumni are also providing us help with their support for guiding the current students, in their projects, higher studies, professional requirements in the market. Based on the previous experience and expert guidance available, different teaching methods mentioned above including, Black board teaching, Power Point Presentation, ICT tools, Industrial visits, Field trips, Guest Lectures, Self learning, industrial internship, student seminar, library reading, assignments, quiz, Predict - Observe - Explain Concept Formation, Design, mathematical modelling, Simulation, fabrication, prototype, NPTEL materials, e-Journals and project are adopted for various programs offered by the Department.

- <u>B.Tech. Programme</u>
 - "Industrial internship" is a mandatory requirement during 3rd year summer vacation.
- <u>M.Tech. Programme</u>
- Hands on experience on various simulation software viz., STAAD-PRO, PRIMAVERA are included through various laboratory experiments, which would help the students to get placements.
- Project work / thesis work is spread over two semesters and the same will be evaluated by six periodical reviews and two external reviews.

The quality policy is to pursue global standards of excellence in all our endeavours and to remain accountable through processes of self evaluation and continuous improvement.

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

- By preparing a lesson plan for each course at the beginning of every semester, which is audited for compliance with the programme and course objectives.
- By following Continuous valuation method comprises of day to day work, report valuation followed by short viva voice related to the topics covered in the same or previous sessions.
- By taking feedback from the students for different courses offered by the department.
- Classroom seminar sessions.
- Faculty feedback report.
- Regular Departmental meeting of faculty members to access the various covered topics as per the time schedule decided.
- Through the achievements of students in co-curricular and extracurricular activities.

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

The Department has seen a significant growth over the last 5 years, especially because of the rapid advances in Civil Engineering; therefore, there is a continuous upgradation in the curriculum and syllabi. The curriculum in Civil Engineering lays great emphasis on deep understanding of fundamental principles and state-of-the-art knowledge of Structural Engineering, Geotechnical Engineering, Water Resources Engineering, Highway and Transportation Engineering, Environmental Engineering and others fields of Civil Engineering. All the above changes are incorporated on the recommendation of the faculty teaching the courses as well as the feedback obtained from the students. Several new electives courses have been introduced in B. Tech. and M. Tech. programmes based on the current technology evolution.

48. Give details of "beyond syllabus scholarly activities" of the department.

Faculty seminar: Faculty seminars on their respective research areas are conducted regularly.

Students Seminar: Students are encouraged to prepare a report on any Civil Engineering Research Topic and present their study.

Final Year Projects: Students are given choice to pick a research based or design based project topic as part of their Final year project. Students are also encouraged to participate and publish their work in National/International Conferences and journals.

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.

- Well established Structural Engineering, Wind Engineering, Fluid Mechanics and Hydraulics, Concrete technology, Highway and Geotechnical Engineering, Environmental Engineering and Surveying lab to cater to the needs of industry.
- Guest lectures on recent technological developments on Civil Engineering are conducted periodically.
- Hands on training and seminar to faculty and students on latest hardware and software tools.
- Industrial visit are arranged to learn the latest trends in CE.
- Sessions on knowledge sharing among technical teams on fundamental and recent developments of CE.
- The department has contributed in the field of Structural Engineering, Wind Engineering, Water resources and Hydraulics, Concrete technology and currently research scholars are pursuing research in the mentioned topics using various laboratory experimentations simulation software and tools.
- In addition to above, faculty and students of the department are involved in generation of new knowledge and contributions through publications as below:

	Total number of publications: Peer Reviewed	53
1.	International Journals	45
	National Journals	08
2	International Conferences	33
3	National Conferences	28
4	Chapters in Books	2
5	Books with ISBN	3

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

Strength:

- Reaching expected outcome imparting quality education and securing good academic results.
- Exposure of students to practical pursuit.
- Good no. of students are pursuing PG programmes in the reputed institutions like IITs, NITs BITS, NICMAR and others
- Generating revenue to the college by consultancy.
- Student's active participation in model making and paper presentations.

Weakness:

• Limited industry interaction due to non existence of major industries in the surrounding places.

Opportunities:

- Increase opportunities to take up R&D projects.
- Growing demand for Civil Engineers.

Constraints:

- Decrease in quality of admissions due to mushrooming of engineering colleges and deemed Universities.
- Poor communications skills of the students from the rural area at the time of admissions.

52. Future plans of the department.

- To strengthen the existing Masters programme, we plan to increase the total numbers of master students to 48. We also plan to offer a master's program in Water resources engineering.
- To enhance the focus on Ph.D. programme. We aim to increase the number of Ph.D. scholars.
- To enhance our contribution to serve the needs of local community and global professional fraternity through innovative services.
- To organize at least one national and region level workshops, seminars, student competitions during this period.
- To continue to upgrade our curriculum, courses, and educational methods.
- To continue to upgrade our existing laboratories and also establish newer laboratories.

Annexure-I/CE

Indexed in SCOPUS

International Journals

2015

 Arunachalam S., and Lakshmanan N, "Across-Wind Response of Tall Circular Chimneys to Vortex Shedding", Journal of Wind Engineering and Industrial Aerodynamics, Vol.145, pp. 187–195, 2015 [Citation Index: 0, SNIP: 3.330, SJR: 1.023, Impact Factor: 1.864, H-Index: 65].

2014

- Selvi Rajan S, Ramesh Babu G, Arunachalam S, Nagesh R Iyer, and Lakshmanan N, "Interference Factors for Natural Draught Cooling Towers Based on Wind Tunnel Experiments", Journal of Structural Engineering, Vol.41, Issue 1, pp. 52-58, 2014 [Citation Index: 0, SNIP: 2.004, SJR:1.672, Impact Factor: N/A, H-Index: N/A].
- Gandhi S, "Analysis of Supercritical Flow in Suddenly Expanding Channel", International Journal of Fluid Mechanics Research, Vol. 41, Issue 3, pp. 194-220, 2014 [Citation Index: 0, SNIP: 0.507, SJR: 0.164, Impact Factor: N/A, H-Index: N/A].
- Gandhi S and Yadav V, "Characteristics of Supercritical Flow in Rectangular Channel", International Journal of Physical Sciences, Vol.8, Issue 40, pp. 1934-1943, 2014 [Citation Index: 3, SNIP: 1.184, SJR: 0.150, Impact Factor: N/A, H-Index: N/A].

- Ramesh Babu G, Selvi Rajan S, Harikrishna P, Lakshmanan N, and Arunachalam S, "Experimental Determination of Wind-Induced Response on a Model of Natural Draught Cooling Tower", Experimental Techniques, Vol.37, Issue 1,pp. 37-46, 2013 [Citation Index:4, SNIP: 0.943, SJR: 0.378, Impact Factor: 0.545, H-Index: 22].
- Amit Srivastava, Chaitanya R Goyal and Abhishek Raghuvanshi, "Load Settlement Response of Footing Placed Over Buried Flexible Pipe Through Model Plate Load Test", International Journal of Geomechanics, ASCE, Vol. 13, Issue 4, pp. 477–481, 2013[Citation Index: 3, SNIP: 2.278, SJR:1.778, Impact Factor: 1.199, H-Index: 28].

- Akash Jain, Ankit Kathuria, Adarsh Kumar, Yogesh Verma and Krishna Murari, "Combined Use Of Non-Destructive Tests for Assessment of Strength of Concrete in Structure", Procedia Engineering, Vol. 54, pp. 241–251, 2013[Citation Index:0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].
- Sabareesh Geetha Rajasekharan, Masahiro Matsui and Yukio Tamura , "Characteristics of Internal Pressure and Resulting Roof Wind Force in Tornado-Like Flow", Journal of Wind Engineering & Industrial Aerodynamics, Vol. 112, pp. 52-57, 2013[Citation Index:7, SNIP: 0.550, SJR:0.449, Impact Factor: 1.864, H-Index: 65].

 Amit Srivastava and Sivakumar Babu G L, "Uplift Capacity and Performance Assessment of Anchor Piles Installed to Basement Raft", Electronic Journal of Geotechnical Engineering, Vol. 17, pp. 1173-1187, 2012[Citation Index: 0, SNIP: 0.500, SJR: 0.206, Impact Factor: N/A, H-Index: N/A].

2011

- Arunachalam S, Lakshmanan N, Ramesh Babu G, Selvi Rajan S and Harikrishna P, "Across-Wind Response of a Circular Chimney Due to Vortex Shedding", Journal of Structural Engineering, Vol. 37, Issue 6, pp. 444-446, 2011 [Citation Index: 3, SNIP: 2.004, SJR:1.672, Impact Factor: N/A, H-Index: N/A].
- 11. Amit Srivastava and Sivakumar Babu G L, "Deflection and Buckling of Buried Flexible Pipe-Soil System in a Spatially Variable Soil Profile", Geomechanics and Engineering, Vol. 3, Issue 3, pp. 169-188, 2011[Citation Index: 0, SNIP: 0.437, SJR: 0.237, Impact Factor: N/A, H-Index: N/A].

- Selvi Rajan S, Lakshmanan N, Jaya K P, Arunachalam S and Ramesh Babu G, "Evaluation of Structural Number for a Bridge Deck Model Using Pressure Measurement", Advances in Vibration Engineering, Vol. 9, Issue 2, pp. 153-158, 2010 [Citation Index: 0, SNIP: 0.252, SJR: 0.145, Impact Factor: N/A, H-Index: N/A].
- Abraham A, Arunachalam S, Selvi Rajan S, Ramesh Babu G and Lakshmanan N, "Mean and Fluctuating Wind Loads on an Industrial Structure With Curved Roof", Asian Journal of Civil Engineering, Vol.11, Issue 4, pp. 477-494, 2010 [Citation Index:1, SNIP: 0.158, SJR:0.171, Impact Factor: N/A, H-Index: N/A].

- 14. Amit Srivastava and Sivakumar Babu G L,"Total Risk Rating and Stability Analysis of Embankment Dams in the Kachchh", Gujarat, India. Engineering Geology,Vol.115, pp. 68-79, 2010[Citation Index: 5, SNIP: 1.708, SJR: 1.044, Impact Factor: 2.259, H-Index: 77].
- Sivakumar Babu G Land Amit Srivastava,"Reliability Analysis of Strength of Cement Treated Soils", Georisk, Vol. 5, Issue 3-4, pp. 1 – 6,2010[Citation Index: 2, SNIP: 0.460, SJR: 0.226, Impact Factor: N/A, H-Index: N/A].
- 16. Sivakumar Babu G L, Amit Srivastava, Nanjunda Rao K S and Venkatesha S, "Analysis and Design of Vibration Isolation System Using Open Trenches", International Journal of Geomechancis, Vol. 11, pp. 364 – 369, 2010[Citation Index: 9, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index:. N/A].

National Journals

2015

 Shivam Gupta, Nishant Varshney, Jatin Upadhyay, A.K Mullick and Krishna Murari, "An Experimental Study on Self-Compacting Concrete With Aggregates from Waste Material", Indian Concrete Journal, Vol. 89, Issue 2, pp. 39-48, 2015[Citation Index: 0, SNIP: N/A, SJR: 0.188, Impact Factor: N/A, H-Index: 11].

- Babu V S, Mullick A K, Jain K K. and Singh P K, "Mechanical Properties of High-Strength Concrete With Recycled Aggregate-Influence of Processing", Indian Concrete Journal, Vol. 88, Issue 05, pp. 10-26, 2014[Citation Index:0, SNIP: N/A, SJR:0.188, Impact Factor: N/A, H-Index: 11].
- Babu V S, Mullick A K., Jain K K. and Singh P K., "Mechanical Properties of High- Strength Concrete With Processed Recycled Aggregate – Influence of Mixing Techniques", Indian Concrete Journal(ICJ), Vol. 88, Issue10, pp. 42-56, 2014[Citation Index: 3, SNIP: N/A, SJR:0.188, Impact Factor: N/A, H-Index: 11].
- Parag Agarwal, Naman Dubey, Mullick A K, and Babu V S, "Fine Fractions of Recycled Concrete as Sand Replacement", Indian Concrete Journal, Vol.88, Issue 10, pp 80-86, 2014[Citation Index: 0, SNIP: N/A, SJR: 0.188, Impact Factor: N/A, H-Index: 11].

- 2013
 - Kanchan Mala, Mullick A K., Jain K K. and Singh P K, "Accelerated Curing Strength of Concrete with Binary and Ternary Blends of OPC, Silica Fume and Fly Ash", Indian Concrete Journal, ISSN Print: 0019-4565, Vol. 87, Issue 4, pp. 39-49, 2013. [Citation Index: 0, SNIP: N/A, SJR: 0.188, Impact Factor: N/A, H-Index: 11].

Other Journals

International

2015

- Raja Abshiek, Krishna Murari, Atul Sigh and Sachin Gangwar, "Copper slag, a Solution and an Alternative to River Sand and in Concrete Manufacturing" Journal of Civil Engineering and Environmental Technology, Vol. 2, Issue 3, pp. 214-218, 2015[Citation Index: 0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].
- Krishna Murari, Rafat Siddique and K K Jain, "Use of Waste Copper Slag, a Sustainable Material", Journal of Material Cycles and Waste Management, Vol. 17, Issue 1, pp. 13-26, 2015[Citation Index: 3, SNIP: 0.472, SJR: 0.392, Impact Factor: 0.95, H-Index: 20].

- 3. Arunachalam S, "A Method for Prediction of Across-Wind Response of Tall Circular Concrete Chimneys", Journal of Wind and Engineering, Vol. 11, Issue 1, pp. 23-39, 2014 [Citation Index: 0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].
- Gandhi S, "Characteristics of Hydraulic Jump", International Science Index, World Academy of Science, Engineering and Technology, Vol. 8, Issue 4, pp. 219-224, 2014 [Citation Index: 0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A]
- Babu V. S., Mullick A K, Jain K K and Singh P K, "Strength and Durability Characteristics of High-Strength Concrete with Recycled Aggregate-Influence of Mixing Techniques", Journal of Sustainable Cement-Based Materials, Vol. 03, Issue 2, pp.88-110, 2014[Citation Index: 3, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].

- Babu V. S., Mullick A K, Jain K K and Singh P K "Strength and Durability Characteristics of High-Strength Concrete With Recycled Aggregate –Influence of Processing", Journal of Sustainable Cement based Materials, Vol.04, Issue.01, pp. 54-71, 2014[Citation Index: 0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].
- Shukla D K, Jain K K and Singh M., "Bearing Capacity of Footing on Slopping Anisotropic Rock Mass", International Journal of Research in Engineering & Technology, ISSN (P):2347-4599, Vol-2, Issue 4, pp. 217-232, 2014 [Citation Index: 1, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].
- Shukla D K, Jain K K and Singh M, "Variation in Bearing capacity of Footing on Slopping Anisotropic Rock Mass", International Journal of Research in Engineering & Technology, ISSN (P):234-4599, Vol.2, Issue 6, pp.85-98, 2014[Citation Index: 0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].
- K. Murari, D. R Mishra, D. K. Shukla, B Jha and J. Talwar, "Performance Evaluation of Concrete Containing Polypropylene and Recron Fiber as Additive" Journal of Scientific and Technical Research, Vol. 6, Issue 2, pp. 44-49, 2014[Citation Index: 0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index:. N/A].
- Himanshu Gaur, R. Goliya and Krishna Murari, "Parametric Study of Rigid Frame Multi-Storey R/C Buildings with Vertical Geometric Irregularity", International Journal of Engineering, Business and Enterprise Applications (IJEBEA), Vol.10, Issue 1, pp. 89-96 2014[Citation Index: 0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].
- 2013
- 11. Selvi Rajan S , Ramesh Babu G, Chitra Ganapathi S , Arunachalam S, Harikrishna P, Abraham A and Nagesh R Iyer, "Experimental Evaluation of Aerodynamic Parameters for a Cooling Tower Model", Journal of Wind and Engineering, Vol. 10, Issue 1, pp. 24-36, 2013 [Citation Index: 0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].
- Kanchan Mala, Mullick A K., Jain K K. and Singh P K, "Effect of Relative Levels of Mineral Admixtures on Corrosion Resistance of Cracked Ternary Cement Blend Concrete", Journal of Sustainable Cement-based Materials, ISSN Print: 2165-0373, ISSN Online: 2165-0381, Vol. 3, Issue 1, pp. 24-46, 2013[Citation Index: 2, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].

- Kanchan Mala, Mullick A K., Jain K K. and Singh P K, "Effect of Relative Levels of Mineral Admixtures on Strength of Concrete with Ternary Cement Blend", International Journal of Concrete Structure and Materials, ISSN Online: 2234-1315, Vol. 7, Issue 3, pp. 239-249, 2013. [Citation Index: 2, SNIP: N/A, SJR: N/A, Impact Factor: 1.019, H-Index: N/A].
- Amit Srivastava and Sivakumar Babu G L, "Reliability Analysis-Based Selection Procedure for Granular Filters with Respect to Soil-Boiling Condition", International Journal of Geotechnical Engineering, Volume 7, Issue 2, pp. 193-198, 2013[Citation Index: 2, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: 8].
- 15. Shubranshoo Srivastava and Shiva Shankar Y, "Eco- Industrial Park and its Applicability to Uttar Pradesh", International Journal of Environmental Research and Development, Vol. 3, Issue 5, pp. 64- 69, 2013[Citation Index: 0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].
- Subramanyam R and Mishra I M, "Characteristics of Methanogenic Granules Grown on Glucose in an Up-flow Anaerobic Sludge Blanket Reactor", Biosystems Engineering, Vol. 114, Issue 2, pp. 113-123, 2013[Citation Index: 5, SNIP: 1.694, SJR: 0.773, Impact Factor: N/A, H-Index: N/A].
- Subramanyam R, "Physicochemical and Morphological Characteristics of Granular Sludge in Upflow Anaerobic Sludge Blanket (UASB) Reactors", Environmental Engineering Science, Vol.30, Issue 5, pp. 201-212, 2013[Citation Index: 0, SNIP: 0.550, SJR: 0.449, Impact Factor: 0.991, H-Index: 41].
- Subramanyam R and Mishra I M, "The Benzenediols: Catechol, Resorcinol and Hydroquinone - A Critical Review on Anaerobic Biodegradation", Journal of Hazardous, Toxic and Radioactive Waste, Vol.17, Issue 3, pp. 201-212, 2013[Citation Index: 0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: 18].

- Amit Srivastava, "Reliability Analysis of Ground Water Level and Sea Water Interface in Coastal Land Reclamation Projects", International Journal of Life Cycle Reliability and Safety Engineering, Vol. 1, Issue 3, pp. 16 – 22, 2012 [Citation Index: 0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index:. N/A].
- Yogesh I. Murthy, "Stabilization of Expansive Soil Using Mill Scale", International Journal of Engineering Science and Technology, ISSN: 0975-5462, Vol. 3, Issue 4, pp. 629-632, 2012[Citation Index: 7, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].

21. Yogesh I. Murthy, Sharda A and Jain G, "Performance Evaluation of Glass Fibers in Concrete", International Journal of Engineering and Innovative Technology, Vol.1, Issue 6, pp. 246-248, 2012[Citation Index: 8, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].

2011

- 22. Gandhi S and Singh R P, "Identification of Principal Hydraulic Jump Characteristics in Prismatic and Non-Prismatic Channels: Principal Component Analysis", *International Journal of Water Resources and Environmental Management*, Vol. 2, Issue 1, pp. 77-89, 2011 [Citation Index: 0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].
- 23. Amit Srivastava, Sivakumar Babu G L, Krishna R Reddy and Hanumanth S Kulkarni, "Effect of Leachate Recirculation and Extent of Degradation on the Stability of Bioreactor Landfill Slopes", ASCE Geotechnical special publication 224, pp. 720-727, 2011[Citation Index: 0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].
- Amit Srivastava and Sivakumar Babu G L, "Analytical Solutions for the Protective Filters Based on Soil Retention and Permeability Criteria with Respect to Soil Boiling Condition", Canadian Geotechnical Journal, Vol.48, pp. 956–969, 2011[Citation Index: 5, SNIP: 2.104, SJR: 1.851, Impact Factor: 1.478, H-Index: 69].
- 25. Kamatchi P, Balaji Rao K, Arunachalam S, and Nagesh R Iyer, "Methodologies for Vulnerability Assessment of Built-Environment Subjected to Earthquakes", International Journal of Earth Sciences and Engineering, Vol. 4, Issue 6, pp. 183-188, 2011 [Citation Index: 1, SNIP: 0.042, SJR: 0.110, Impact Factor: N/A, H-Index: N/A].

- 26. Arunachalam S and Lakshmanan N., "Modeling of Across-Wind Force and Response of a Circular Chimney Including Lock-In Effects", Journal of Wind and Engineering, Vol.7, Issue 2, pp. 10-27, 2010 [Citation Index: 4, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].
- Sivakumar Babu G L and Amit Srivastava. "Comparative Study of 2D and 3D Numerical Analysis of Deep Excavation Problem", Journal of Consulting Ahead, Vol. 4, Issue 1, pp. 80 90, 2010. [Citation Index: 0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].

- Devendra Mohan, Shiva Shankar Y and Abhishek Kumar, "Modelling Global Temperature Variations in Connection with Climate Change", International Journal of Modelling and Simulation in Design and Manufacturing, Vol. 1, Issue 2, pp. 51-57, 2010[Citation Index:0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].
- 29. Krishna Murari, Udit Jain, Aysh Aggarwal and Vikarm Rajvashi, " An Experimental Study on Strength Development of Concrete Using Black Cotton Soil", International Journal of Applied Engineering Research, ,Vol-5, Issue 9, pp. 1433-1439, 2010 [Citation Index:0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].

National

Others

2014

 Walia S, Khullar N K, Singh J and Samaiya N K, "Study on Changes in Manning's Roughness Coefficient in the Presence of Different Concentrations of Wash Load." Hydrology Journal, Vol. 37, Issue 1 & 2, pp. 42-51, 2014[Citation Index: 0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].

2012

 Amit Srivastava, "Spatial variability Modeling of Geotechnical Parameters and Stability of Highly Weathered Rock Slope", Indian Geotechnical Journal, Vol.42, Issue 3, pp. 179-185, 2012[Citation Index: 4, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].

2010

 Amit Srivastava and Sivakumar Babu G L, "Reliability Analysis of Retaining Wall System Using Response Surface Methodology", Indian Geotechnical Journal, Vol.40, Issue 1, pp. 132 – 136, 2010[Citation Index: 0, SNIP: N/A, SJR: N/A, Impact Factor: N/A, H-Index: N/A].

Papers in Conferences

International Conferences

2015

- Anupriya Pandey, Shiva Shankar Y, Aman Saxena, Rachit Khandelwal, "Harnessing Solar Energy for Sustainable Energy Management in the Campus: Case Study of JUET, Guna". International Conference on Geo-engineering and Climate Change Technologies for Sustainable Environmental Management, Organized by Department of Civil Engineering, Motilal Nehru National Institute of Technology, Allahabad, pp. 156-162, October 09-11, 2015.
- 2. Krishna Murari, Dhananjay R Mishra, Birendra Jha, Jatin Talwar, "Experimental Analysis of Polypropylene and Recron Fiber in Concrete", in proceeding of Recent Trends in Science & Technology [IC-RTST 2015], Swami Vivekananda University, at Sagar, MP, India. P. 93, February 27- 28, 2015.

- 3. Arunachalam, S., "Modelling of Across-wind Response of Tall Circular Chimneys to Vortex Shedding", 14th Intl. Conference on wind engineering, Brazil, Paper ID. No. 01871, June 21-26, 2014.
- 4. Gandhi S , Singh R. P, "Hydraulic Jump Characteristics in Non-Prismatic Channels", Proceedings of 5th IAHR International Symposium on Hydraulic Structures ISHS-2014 and 11th National Conference on Hydraulics in Civil Engineering, Brisbane, Australia, ISBN: 9781742721156, pp. 1-9, June 25-27, 2014.
- Samaiya N. K. "Infiltration of Wash Material into the Pores of Stream Bed Material". Proceedings of the 7th International Symposium on Environmental Hydraulics, ISEH-2014. Singapore. pp 291-294. January 7-9, 2014.
- Samaiya N. K., Khullar N. K. "Effect of Presence of Cohesive Wash Load on Flow Resistance." Hydro 2014 International, 19th Conference on Hydraulics, Water resources & Environmental Engineering, MANIT Bhopal, December 18-20, 2014.
- Mullick, A.K., Jain, K.K., Singh,P.K., Babu, V.S., "Enhancement of Aggregate-Related Characteristics of High Strength Concrete with Recycled Aggregate", The 6th International Conference of Asian Concrete Federation (ACF), Seoul, Korea, pp.36-37, September 21-24, 2014.

- 8. Shiva Shankar Y, Rachit Khandelwal, "Green Initiatives for Sustainable Universities: Case Study of JUET, Guna", International Conference on Sustainable Infrastructure, Organised by American Society of Civil Engineers (ASCE- India section), pp. 990- 999, October 17-18, 2014.
- 9. Ajoy Mullick, Akash Jain, Anchit Lakhanpal , Krishna Murari, "Pozzolanic Properties and Utilization of Bottom Ash in Cement and Concrete",6th International Conference of the Asian Concrete Federation, Republic Of Seoul Korea, September 21–24, 2014.

- Abraham, A., Harikrishna P., Selvi Rajan, S., Nagesh R. Iyer, Arunachalam, S., Kishor Kumar, "Interference Effects of Mean Wind Loads for a Group of High Rise Buildings with Unconventional Plan Shape", Proceedings of the Eighth Asia-Pacific Conference on Wind Engineering, Chennai, pp.309-317, December 10-14, 2013.
- 11. Arunachalam, S., Lakshmanan, N., Ramesh Babu, G, "A Method for Evaluation of Across-Wind Response of Circular Chimney Including Lock-in Effects and Comparison with ACI Code of Practice", Proceedings of the Eighth Asia-Pacific Conference on Wind Engineering, Chennai, pp.333-343, December 10-14, 2013.
- Selvi Rajan, S., Ramesh Babu, G., Arunachalam, S., Nagesh R. Iyer, Lakshmanan, N., "Interference Factors for Natural Draught Cooling Towers Based on Wind Tunnel Experiments", Proceedings of the Eighth Asia-Pacific Conference on Wind Engineering, Chennai, pp.490-498, December 10-14, 2013.
- R K Goliya, N K Samaiya, G R Sabareesh, A. Gupta. "Current Status of Interference Effect Studies on Tall Buildings" The Eighth Asia-Pacific Conference on Wind Engineering, Chennai, India, December 10-14, 2013.
- Samaiya N. K., Khullar N. K. "Effect of Cohesive Wash Load Transport on Bed Load Transport". 18th International Conference on Hydraulics, Water Resources, Coastal and Environmental Engineering. IIT Madras, December 04-06, 2013.
- Y.I.Murthy, Y.N.Zhang, M.Medraj, "Experimental Investigation of Mg-Ca-Y System", MS&T, Conference of Metallurgists and Materials Science & Technology Conference, Montreal, Canada. October 27-31, 2013.
- Y.I. Murthy, R.Duan, X.Zhang, "Structural Performance of Bio-Inspired Composite Shell Structure", International Conference on Composite Structures -17, University of Porto, Portugal, June 5-7, 2013.

- Subramanyam, R., Shiva Shankar, Y., "The Environmental Impacts of Cell/Mobile Phones", 3rd International Conference on Climate Change & Sustainable Management of Natural Resources (TIMS-12), ITM University Campus, Gwalior (MP), India, February 5-7, 2012.
- Subramanyam, R., Abhishek Raghuvanshi, Shiva Shankar, Y., "A Research Based Study on Sethusamudram Shipping Canal Project & its Impacts on Environment", 3rd International Conference on Climate Change & Sustainable Management of Natural Resources (TIMS-12), ITM University Campus, Gwalior (MP), India, February 5-7, 2012.
- 19. Geetha Rajasekharan Sabareesh , Masahiro Matsui , Yukio Tamura , "Ground Roughness Effects on Internal Pressures and Local Roof Wind Forces of Building Exposed to Tornado-Like Flow", 7th Bluff Body Aerodynamics and Applications Colloquium, Shanghai, China, September 2-6,2012.

- 20. Arunachalam,S., "Engineering of Structures For Mitigating Damage Due to Cyclones-R&D Experience at CSIR-SERC, India", Proceedings of the 5th International Symposium on Wind Effects on Buildings and Urban Environment Wind Hazard Resilient Cities: New Challenges, Shinjiku, Tokyo, Japan, March 7-8, 2011.
- 21. Chitra ganapathy, S., HariKrishn, P., Arunachalam, S., Iyer Nagesh R., Lakshmanan, N., "Numerical Investigations on Aerodynamic Characteristics of 2d Channel Section Using Two-equation Turbulence Models", Proceedings of 13th International Conference on Wind Engineering, Amsterdam, Paper No. 286, July 10-15, 2011.
- 22. Arunachalam,S., Abraham, A., Selvi Rajan, S., Ramesh Babu, G., Lakshmanan, N, "Pressure Measurement Studies on a Low-Rise Building Model with Provision of a Flow Modifier", Proceedings of 13th International Conference on Wind Engineering, Amsterdam, Paper No. 134, July 10-15, 2011.
- 23. Arunachalam. S., "Studies on Across-wind Load and Response of a Circular Chimney Including Lock-in Effects: Part-1", Proceedings of 13th International Conference on Wind Engineering, Amsterdam, Paper No. 267, July 10-15, 2011.
- 24. Arunachalam. S., "Studies on Across-wind Load and Response of a Circular Chimney Including Lock-in Effects: Part-2", Proceedings of 13th International Conference on Wind Engineering, Amsterdam, Paper No. 602, July 10-15, 2011.

- 25. Samaiya N. K., Kothyari, U. C., Khullar N. K. "Limiting Concentration of Wash Load Transport in Open Channels". Proc. Conf. on Hydraulics and Water Resources-HYDRO 2011, Surat, India. pp 550-559, December 29-30, 2011.
- 26. A. Srivastava "Risk Assessment and Stability Analysis of Earth Dams for Forensic Investigations", International symposium on Forensic Geotechnical Engineering, ICFGE 2011, IIT Bombay, 2011.
- 27. R. Khare, A.Garg, T.Kant, Y.I. Murthy, "Transient Dynamic Analysis of Composites and Sandwich Plates Using Higher Order Quadrilateral Flat Facet Shell Element", International Conference on Composite Structures -16, Porto, Portugal, June 1-3, 2011.
- 28. Subramanyam, R., Mishra, I.M., "Biodegradation of Glucose Bearing Synthetic Wastewater in an UASB Reactor Start-up", International Congress of Environmental Research (ICER-11), SVNIT, Surat, December 15-17 2011.
- 29. Subramanyam, R., Mishra, I.M., "Start-Up of a Mesophilic Glucose-Fed Uasb Reactor: Change in Sludge Characteristics", International Congress of Environmental Research (ICER-11), SVNIT, Surat, December 15-17, 2011.
- 30. Subramanyam, R., and Mishra, I.M., "Chemical Characteristics of the Granular Sludge from an Uasb Reactor Treating Binary Mixture of Catechol and Resorcinol in an Aqueous Solution", International Conference on Environmental Engineering and Applications – ICEEA 2011, 19-21, Shanghai, China. International proceedings of Chemical, Biological & Environmental Engineering "Environmental Engineering and Applications" Vol. 17, 128-133.
- A. Srivastava, "Spatial Variability Modeling of Geotechnical Parameters and its Influence on Highly Fragmented Rock Slopes", INDOROCK 2011 Conference, IIT Roorkee, pp. 315 – 324, October 13-15, 2011
- 32. A. Srivastava, "Risk Assessment and Stability Analysis of Earth Dams for Forensic Investigations", International symposium on Forensic Geotechnical Engineering, ICFGE 2011, IIT Bombay, 2011.

33. Arunachalam, S., Lakshmanan, N., Nagesh R. Iyer, "Lesson from Forensic Investigations on Cyclone Damage to Buildings and Structures and their Design Implications", Addendum to Proceedings of the first Indo-US Forensic Engineering Workshop on "Indo-US Forensic Practices, Investigation Techniques and Technology", Tiruchirrappallli, pp 10-20, December 15-17, 2010.

- 34. Vedant Katiyar, Harikrishna, P., Arunachalam, S., "Numerical Simulation of Aerodynamic Force Coefficients for Rectangular Cylinders", Proceedings of the International Conference on Theoretical, Applied, Computational and Experimental Mechanics, IIT Kharagpur, December 27-29, 2010.
- 35. Kanchan Mala, Singh P. K., "Alkali Activated Fly Ash Concrete A Review", Proceedings of 11th NCB International Seminar on Cement and Building Materials, New Delhi, 2010.

National Conferences

2015

Nil

2014

 Arunachalam, S., Lakshmanan, N., "Further Studies on Across-Wind Response of Tall Chimneys", Proceedings of the 7th National Conference on Wind Engineering, Patiala, November 21-22, 2014

2013

- Kanchan Mala, Singh P. K., "Some Emerging Trends for Making Concrete More Sustainable", Proceedings of National Conference on Environmental Sustainability and Society: The Growing Paradigm Shift (ESS – 2013), Guna, Madhya Pradesh, 2013.
- Samaiya N. K., Jain A., Gupta R. "Assessment of Water Quality of GKS Canal". Proc. Conf. on Environmental Sustainability and Society: The Growing Paradigm Shift-ESS-2013. JUET Guna, March 30-31, 2013.
- 4. Samaiya N. K., Khullar N. K. "Selection of Method for Computation of Hydraulics Mean Radius With Respect To Bed in a Laboratory Flume". Proc. Conf. on DAV-NCST-2013. Jalandhar, May 30-31, 2013.
- 5. Gandhi S, "Experimental Analysis of Sediment Transport", Proceedings of the Fortieth National Conference on Fluid Mechanics and Fluid Power, NIT Hamirpur, H.P., India, pp.1513-1521, December 12-14, 2013.

2012

6. G.R.Sabareesh, Mohit Dwivedi, Abhay Gupta, P.K.Pande, "The State of Art Wind Tunnel in Guna, An overview", 6th National Conference on Wind Engineering, New Delhi, India, pp 122-126, December 14-15, 2012.

- Kishor Kumar, Kamal Poddar, G.R.Sabareesh, "Effect of Complex Building Shapes And Interference on Overall Wind Loads", 6th National Conference on Wind Engineering, New Delhi, India, pp 37-40, December 14-15, 2012.
- Subramanyam, R. Balamurugan, M. Nivas, R. Periyar Lenin R., "Studies on Wastewater from Automobile Service Stations In Madurai City", India. Proc. National Conference on Recent Advances in Chemical and Environmental Engineering (RACEE-2012), Department of Chemical Engineering, National Institute of Technology, Rourkela (Orissa)), INDIA, (Paper ID: 125, EPCRE-04), January 20-21, 2012.
- Subramanyam, R. Rahul Kumar, S. Swarnesh, S., "Performance Evaluation of the Sewage Treatment Plant at JUET campus", Proc. National Conference on Recent Advances in Chemical and Environmental Engineering (RACEE-2012), Department of Chemical Engineering, National Institute of Technology, Rourkela (Orissa)), Indi, (Paper ID:82, M-10), January 20-21, 2012.
- Samaiya N. K., Khullar N. K. "Load through Channels and their Effect on Sediment transport -A Review". Proc. Conf. on Hydraulics and Water Resources-HYDRO 2012, Mumbai, India. pp 487-494, December7-8, 2012.

- Subramanyam, R., Narendra Nath Dutta., "Current Trends In Environmental Engineering Research - An Overview". Proc. National Conference on Recent Advancements in Civil Engineering & Infrastructural Developments (RACE-InD 2011), Department of Civil Engineering, Jaypee University of Engineering & Technology, Guna (MP), India, E32-36, December 21-22, 2011.
- 12. A. Srivastava, "Handling Uncertainty in the Stability Assessment of a Deep Excavation Problem", in the proceedings of 3rd Indian Young Geotechnical Engineers Conference, IIT Delhi, 2011.
- A. Srivastava, G. L. Sivakumar Babu, "Remediation of Upstream Slope of an Impounding Reservoir Using Soil Reinforcing Technique". IGC, Kochi Chapter, pp. 589-592, December 15-17, 2011.
- A. Srivastava, K. Singh, "Nanotechnology in Civil Engineering and Construction: A Review on State Of The Art and Future Prospects", IGC – Kochi Chapter, 1077-1080, December 15-17, 2011.
- A. Srivastava, "Geotechnical Instrumentation, Monitoring and Surveillance in Earth Dam Safety Program", IGC- Kochi chapter, 331-334, December 15-17, 2011.

- A. Srivastava, G. L. Sivakumar Babu, "Remediation of Upstream Slope of an Impounding Reservoir Using Soil Reinforcing Technique", IGC, Kochi Chapter, pp. 589-592, December 15-17, 2011.
- 17. Sravani, Shiva Shankar Y, Abhishek Kumar. "Bio-Filters in Sustainable Environmental Management". All India Biennial Civil Engineering Conference on Advances in Civil Engineering (Nirmaan'11), Organized by Department of Civil Engineering, Indian Institute of Technology, Banaras Hindu University, pp.147-155, April 1-3, 2011.
- Devendra Mohan , Shiva Shankar Y, Abhishek Kumar, "Emerging Technologies for Enhanced Colour Removal", National Conference on Recent Advances in Civil Engineering (RACE- 2011), Organized by Department of Civil Engineering, Indian Institute of Technology, Banaras Hindu University, ISBN 978-81-921121- 0-7, pp. 502- 506, October 14-16, 2011.
- Harshit Jain, Shiva Shankar Y, Devendra Mohan, "Mobilization of Arsenic into Groundwater", National Conference on Recent Advances in Civil Engineering and Infrastructure Development (RACE- Ind- 2011), Organized by Department of Civil Engineering, Jaypee University of Engineering & Technology, pp. 51-57, December 21-22, 2011.
- 20. Y.I. Murthy, R.Khare, "Higher Order Flat Facet Shell Element For Transient Analysis of Composite Laminates", National conference on Advanced materials and structures, AMAS, PEC, Pondicherry, February 3-4, 2011.
- 21. Kanchan Mala, Singh P. K., "Geo-polymer Concrete: Cement-less Concrete" Proceedings of RACE-Ind 2011, National Conference on Recent Development in Civil Engineering and Infrastructure Development, Guna, Madhya Pradesh, December 21-22, 2011.
- Kumar, A., Samaiya, N. K., "Comparative Study of Flow Characteristics around Circular Compound Piers in Rigid Bed Condition". Proceedings Conf. on Recent Advancements in Civil Engineering & Infrastructure Developments- RACE-InD 2011, JUET Guna, pp H-62- H-69, December 21-22, 2011.
- 23. Samaiya, N. K., Kumar, A., Kothyari, U. C. "Flow Resistance for Rigid Bed Channels Carrying Cohesive Wash Load". Proceedings Conf. on Recent Advancements in Civil Engineering & Infrastructure Developments- RACE-InD 2011, JUET Guna, pp H-69- H-74, December 21-22, 2011.
- 24. Arunachalam, S. "Recent Research in Wind Engineering", Proc. Of the national Seminar on Design, Analysis and Health Assessment of Structures including bridges, pp: KVI-1 to KVI-20, July. 2011.

- Balagopal R., Ananth Ramaswamy, Arunchalam S., "Studies on Damage Localization for Pole Type Structures", Proc. Of Structural Engineering Convention 2010 (SEC-2010), Annamalai University, Annamalai Nagar, pp. 761-769, December 8-10, 2010.
- 26. Selvi Rajan, S., N. Lakshmanan, S. Arunachalam, G. RameshBabu, P. Harikrishna, A. Abraham, Chitra Ganapathi, Nageh R. Iyer, Manoj K.Nema, "Wind Tunnel Experiments on an Aero-Elastic Cooling Tower Model", Proceedings of 7th Structural Engineering Convention, Annamalai University, Annamalainagar, pp.393-401, December 8-10, 2010.
- 27. Y.I. Murthy, "Use of E-Waste in Concrete Industry", SRUJAN-2010, IES, IPS Academy, Indore, October 7-8, 2010.
- 28. Y.I. Murthy, "Transient Dynamics of Sandwich Structural Elements", SRUJAN-2010, IES, IPS Academy, October 7-8, 2010.

Monographs:

Nil

Books:

2015

- 1. Velaga Sarath Babu, "Properties of High-Strength Concrete Utilizing Recycled Aggregate" published by LAMBERT Academic Publishing, Germany, (ISBN: 978-3-659-75118-9), 2015.
- Velaga Sarath Babu, "Improvement of Black Cotton Soil Properties using Byproducts and Lime" published by LAMBERT Academic Publishing, Germany, (ISBN: 978-3-659-75566-8), 2015.

2011

3. Gandhi S and Singh R P, "Studies On Hydraulic Jump In Prismatic And Non-Prismatic Channels", Lambert Academic Publishing, Saarbrücken Germany, ISBN: 978-3-8465-1447-4, 2011.

Chapters in Books:

2011

- Shiva Shankar Y and Abhishek Kumar. "Ground Water Issues Related to Climate Change" Book Chapter in Ground Water For Drinking: Issues And Options (Oxford Publishing House ISBN 81 – 86862 - 34 – X), pp. 227-231, 2011.
- 2. Amit Srivastava. "Risk Analysis of Earth Dams: a Case study on analysis of earth dams in Bhuj region, Gujarat, India. Book title Earthquake Research and Analysis, ISBN: 978-953-307-656-0, 2011.

Summary Report

Category	2015	2014	2013	2012	2011	2010	Total publications
International Journals	3	11	12	4	6	9	45
National Journals	1	4	1	1	0	1	08
International Conferences	2	7	7	3	13	3	35
National Conferences	0	1	4	5	14	4	28

Other Publications

Category	Numbers
Monographs	Nil
Books in Chapters	2
Edited Books	Nil
Books with ISBN	3

Journals Indexed in SCOPUS/SCI/Others

Category	SCOPUS	SCI	Others
International	16	9	20
National	5	0	3

Citation Index: NA

Indexing parameter	Details
Google citations	Total citations
	Range:0-9
	Average:1.358
SNIP	Range: 0-2.278
	Average: 0.345
SJR	Range: 0-1.864
	Average:0.238
Impact Factor	Range: 0-1.864
	Average:0.168
h-index	Range: 0-69
	Average:7.378

Annexure-II/CE

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

National Visit

Abhishek Verma

- Abhishek Verma attended Engineering faculty workshop conducted at R C patel institute of technology, shirpur, December 09-11, 2013 under mission 10x by wipro
- Abhishek Verma attended Two week ISTE workshop on fluid mechanics conducted by Indian institute of technology Kharagpur, May 20-30, 2014.
- Abhishek Verma attended Two week ISTE workshop on engineering mechanics conducted by indian institute of technology Bombay, from November 26-December 06, 2013

Dr. S. Arunachalam

- S. Arunachalam delivered Keynote speech on "Dynamic wind effects on tall chimneys and cooling towers" at International Workshop on "Energy and Resource Development", May16-17, 2015, IIT, BHU, Varanasi.
- S. Arunachalam delivered the Key-note speech on the research topic on "*Further studies on across-wind response of tall circular chimneys*". at 7th National Conference on Wind Engineering (NCWE 2014), at Thapar University, Patiala, during, November 21-22, 2014.
- S. Arunachalam delivered Invited technical lecture on "Wind Loads on Buildings and Structures – R&D Contributions" at Annual Convention of the Indian National Academy of Engineering (INAE) held at Birla Institute of Scientific Research at Jaipur during 12-13, December, 2014.
- S. Arunachalam delivered Invited technical lectures on "Studies related to Griffin Universal Strouhal number based on wind tunnel pressure measurements" at Windy-2013: A Workshop on Wind Tunnel Testing Techniques and Applications", organised by National Wind tunnel facility, IIT, Kanpur, March 22-23,2013.
- S. Arunachalam delivered Invited technical lectures on Salient features of the upcoming State-of-the-Art Boundary layer wind tunnel at JUET, Guna" at Windy-2013: A Workshop on Wind Tunnel Testing Techniques and Applications", organised by National Wind tunnel facility, IIT Kanpur, March 22-23,2013.

- S. Arunachalam delivered Keynote speech on "Wind Disaster Mitigation in India: Present Scenario and Future Challenges" at International Workshop on "Wind Disaster Problems-Challenges Ahead", Royal school of Engineering & Technology, Guwahati, February 21-22, 2013.
- S. Arunachalam delivered invited paper on "A method for evaluation of acrosswind response of a circular chimney including lock-in effects and comparison with ACI code of practice" at The Eighth Asia-Pacific Conference on Wind Engineering, December 10-14, 2013, Chennai, India.
- S. Arunachalam delivered a talk on "A new state-of-the-art boundary layer Wind tunnel facility at juet Guna, salient Features and road map" at One-day International Workshop on "Role of industrial wind tunnels in design of civil engineering structures", organised by JUET, Guna, December 16, 2013.
- S. Arunachalam delivered Keynote speech on "Wind energy for building sector and transportation sector" at CAETS-2015, Annual Convention of International Council of Academies of Engineering and Technological Sciences, Organised by INAE on "Pathways to Sustainability: Energy, Mobility and Healthcare Engineering", October 13-14, 2015, New Delhi.

Dr. Sumit Gandhi

• Gandhi S Attended 'Training course on Repair and Rehabilitation of Dams' organized by Central Soil and Material Research Station (CSMRS, Ministry of Water Resources), New Delhi, February 16-17, 2012.

Dr. Nitin Kumar Samaiya

- Nitin Kumar Samaiya: delivered invited lecture at 3rd International Conference on Recent Trends in Science and Technology IC-RTST 2015 held at SVNU Sagar during February 27-28, 2015.
- Nitin Kumar Samaiya attended "Infiltration of wash material into the pores of stream bed material". Proceedings of the 7th International Symposium on Environmental Hydraulics, ISEH-2014. Singapore. pp 291-294. 2014
- Nitin Kumar Samaiya Delivered lectures in Short Term Training Course on Cement and Concrete Technology at Shree Cement, Beawar (RJ) during January10-11, 2011.

Dr. Amit Srivastava

• Amit Srivastava: delivered invited talk at QIP-CEP short term course on "Risk Assessment and Management in Geotechnical Engineering" IIT Bombay, March14 -18, 2011.

Shiva Shankar

- Sravani, Shiva Shankar Y and Abhishek Kumar. "Bio-Filters in Sustainable Environmental Management". All India Biennial Civil Engineering Conference on Advances in Civil Engineering (Nirmaan'11), Indian Institute of Technology, Banaras Hindu University, pp.147-155, April 01-03, 2011.
- Shiva Shankar Y Presented paper at International Conference on Sustainability and Management Strategy, Organized by IMT Nagpur and NEERI. "Sustainable Waste Management in a Campus: Case Study of JUET, Guna (2015) during September 04-05, 2015.
- Shiva Shankar Y *Presented paper on the topic 'GIS as a Tool to Assess Climate Change' at UGC* sponsored National Seminar on Application of New Techniques in Geographic Studies, Organised by Baladeo Post Graduate College, Varanasi, pp.9 October 2010.
- Shiva Shankar Y Presented and published paper on topic 'Effect of Global Warming on Aquatic Eco-system' at National Conference on Recent Advances in Fermented Foods, Organized Centre for Food Science and Technology, Banaras Hindu University. March 2011.

Yogesh Iyer Murthy

- Yogesh Iyer Murthy attended Use of Milled Scale in Indian concrete industry, BMTPC, Delhi –International conference on Waste to Wealth, December 2009.
- Yogesh Iyer Murthy attended Higher order flat facet shell element for transient analysis of composite laminates, National conference on Advanced materials and structures, AMAS, PEC, Pondicherry. February 2011
- Yogesh Iyer Murthy attended Use of e-waste in concrete industry, SRUJAN-2010 a National level Seminar at IES, IPS Academy, Indore. October 2010.
- Yogesh Iyer Murthy attended Transient dynamics of sandwich structural elements, SRUJAN-2010 a National level Seminar at IES, IPS Academy. October 2010.

Ravindra Kumar Goliya

- Ravindra Kumar Goliya attended National workshop on Wind Engineering WINDY 2013 at Indian Institute of Technology Kanpur during March, 2013.
- Ravindra Kumar Goliya attended 8th Asia Pacific Conference on Wind Engineering at Chennai organized by SERC-CSIR and ISWE during December 10-14, 2013. "Current status of interference effect studies on tall buildings".
- Ravindra Kumar Goliya attended National workshop on Service life design of concrete structures organized by Indian Concrete Institute during November 14-15, 2011 at ICI Delhi.

International Visit

Dr. S. Arunachalam

- S. Arunachalam Presented a technical paper on "Modeling of Across-wind Response of Tall Circular Chimneys to Vortex Shedding" at 14th International conference on wind engineering, Porto Alegre, Brazil, June 21-26,2015.
- S. Arunachalam presented S. Arunachalam., "Engineering of structures for mitigating damage due to cyclones-R&D Experience at CSIR-SERC, India", Proc.of the 5th Internatiaonal Symposium on Wind Effects on Buildings and Urban Enviroment Wind Hazard Resilient Cities: New Challenges", (2011), Shinjiku, Tokyo, Japan.
- S. Arunachalam presented Sasikala,K., Lakshmanan,N., Arunachalam,S., and Selvi Rajan,S., (2011), Proc. of the International conference on "trends in Industrial Measurements and Automation", Netherland.

Dr. Sumit Gandhi

 Gandhi S & Singh R. P, "Hydraulic Jump Characteristics in Non-Prismatic Channels", Proceedings of 5th IAHR International Symposium on Hydraulic Structures ISHS-2014 and 11th National Conference on Hydraulics in Civil Engineering, Brisbane, Australia, ISBN: 9781742721156, pp 01-09, 25-27 June 2014.

Dr. Nitin Kumar Samaiya

• Nitin Kumar Samaiya attended "Infiltration of wash material into the pores of stream bed material". Proceedings of the 7th International Symposium on Environmental Hydraulics, ISEH-2014. Singapore. pp 291-294. 2014

Yogesh Iyer Murthy

• Yogesh Iyer Murthy attended Experimental investigation of Mg-Ca-Y system, Y.I.Murthy, Y.N.Zhang, M.Medraj, MS&T, Conference of Metallurgists and Materials Science & Technology Conference, Montreal, Canada. October, 2013.