

CURRICULUM VITAE

SANDEEP CHAUDHARY

Associate Professor
Discipline of Civil Engineering
IIT Indore
Simrol, Indore-453 552 (INDIA)
Phone: +91 7324 306 540 (O), 9414475375(M)
Email: schaudhary@iiti.ac.in



ACADEMIC and RESEARCH QUALIFICATIONS

Post Doc. Research Fellow (Aug 2010-July 2011, Structural System Laboratory, KNU, S. Korea)[#]

Ph.D.* (2006, IIT Delhi, India), Course Work CGPA 10.0

M.E. (1999, Malaviya Regional Engineering College, Jaipur, India) with Honours (75.04%)

B. E. (1996, M B M Engineering College Jodhpur, India) with Honours (76.16%)

[#] Fellowship Granted by National Research Foundation, S Korea

* Fellowship Granted by Govt. of India.

RESEARCH INTERESTS

Steel-concrete Composite Structures

A highly efficient procedure developed for the service load analysis of steel-concrete composite beams, bridges and frames. Further, a methodology has been developed for the prediction of inelastic behavior of composite structures using neural networks for ready use by the practicing engineers.

Experimental research is in progress for the service load behaviour of bonded steel-concrete composite bridges and a full scale load tests are being carried out.

Strength, Durability and Microstructure of Sustainable Concrete

Studies carried out for utilisation of waste rubber fiber and ISF slag as partial replacement of fine aggregate in concrete.

Studies in progress for strength, durability and microstructure of ceramic waste concrete using advanced characterisation techniques.

ACADEMIC POSITIONS HELD

Designation	Employer	Period	
		From	To
Lecturer	Malaviya National Institute of Technology Jaipur	31.10.96	30.06.07
Reader	Malaviya National Institute of Technology Jaipur	01.07.07	30.06.10
Associate Professor	Malaviya National Institute of Technology Jaipur	01.07.10	16.05.17
Associate Professor	Indian Institute of Technology Indore	17.05.17	Cont.

PUBLICATIONS: (List enclosed as Annexure CV-1)

Papers published in International Journals:	43
Papers published in National Journals:	04
Papers in published refereed Conferences:	41
Books (as Editor of Conference Proceedings):	03

SPONSORED RESEARCH PROJECTS AS PRINCIPAL INVESTIGATOR

1. “Development of a highly efficient procedure and GUI equipped software for the service load analysis of composite structures” funded by DST, GOI (2008-2011).
2. “Experimental and analytical studies for the short term and long term behavior of epoxy bonded steel-concrete composite bridges” funded by DST, GOI (2012-2015).
3. “Utilization of plastic waste in concrete: Feasibility studies” funded by DST, GOI (2016-2019). PI from MNIT Jaipur.
4. “Waste utilisation in concrete as aggregate: Asian perspective” funded by Asian Concrete Federation (2016-2019). Team leader of researchers from China, Hong Kong and Thailand.
5. “Sustainable and economical functionally graded rubberized concrete pavements” to be funded by DST, GOI. Indo-Tunisia Project. *Approval received*
6. “Accelerated bridge construction: State of art report and design guidelines for adhesive bonded composite bridges” to be funded by MORTH, GOI. *Letter received for revision*

SPONSORED RESEARCH PROJECTS AS SCIENTIST MENTOR

1. “Durability of concrete containing zinc slag as partial replacement of sand” funded by DST, GOI (2010-2013).
2. “Durability studies on geopolymer concrete containing waste rubber fibre as partial replacement of sand” funded by DST, GOI (2015-2018).

MAJOR CONSULTANCY PROJECTS AS PRINCIPAL INVESTIGATOR

- Completed more than 100 projects of total amount about Rs. Two Crore.
- List of major consultancy projects given as Annexure CV-2.

RESEARCH SUPERVISION

Ph.D. SUPERVISION (Details in Annexure CV-3)

Completed and Awarded:	05
Ongoing:	06

M.Tech. SUPERVISION (Details in Annexure CV-4)

Awarded:	30
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COURSES TAUGHT

- **Undergraduate:** Structural Analysis, Finite Element Method*, Design of Steel Structures
- **Postgraduate:** Finite Element Method; Design of Steel-Concrete Composite Structures*, Earthquake Retrofitting of Structures

*Developed and introduced.

NATIONAL AND INTERNATIONAL COLLABORATION:

- Asian Concrete Federation: Chair of Technical Committee on Design
- Applied Mechanics and Systems Research Laboratory, Tunisia: Joint Project
- Hong Kong PolyU, Hong Kong: Joint Project
- Thammasat University, Thailand: Joint Project
- Zhejiang University, China: Joint Project
- IIT Delhi: Joint Ph.D. Supervision and Joint Project
- IIT Ropar: Joint Ph.D. Supervision

COUNTRIES VISITED FOR ACADEMICS AND RESEARCH

China, Hong Kong, Indonesia, Malaysia, S. Korea, Taiwan, Thailand, United Kingdom, Vietnam

REVIEWER FOR THE FOLLOWING MAJOR INTERNATIONAL JOURNALS

1. Advances in Structural Engineering
2. Computers and Concrete
3. International Journal of Concrete Structures and Materials
4. International Journal of Steel Structures
5. Journal of Bridge Engineering, ASCE
6. Journal of Cleaner Production
7. Journal of Constructional Steel Research
8. Journal of Material Engineering, ACI
9. KSCE Journal of Civil Engineering
10. Latin American Journal of Solids and Structures
11. Materials and Design
12. Materials and Structures
13. Nuclear Engineering and Technology
14. Procedia Polytechnica Civil Engineering
15. Steel and Composite Structures

IMPORTANT RESPONSIBILITIES CARRIED OUT IN MNIT JAIPUR

1. Associate Dean (Planning & Development) (June 2016 to May 2017)
2. Associate Dean (Research & Consultancy) (November 2013 to May 2016)
3. Associate Dean (Academic) (March 2012 to November 2013)
4. In-charge, Concrete Test Hall since February 2012- May 2017.
5. Faculty Coordinator, Society of Civil Engineers MNIT Jaipur for five years.
6. Member of Board of Undergraduate Studies (2008-2009).
7. Asstt. Nodal Officer in World Bank funded project, TEQIP (Jan 2007- March 2009).
8. Member of Board of Post Graduate Studies (2005-2007).

COURSES/SEMINARS ORGANISED

1. Coordinator of Self Financed Short Term Training Programme on “Precast and Prefabricated Buildings” organised at MNIT Jaipur, Jaipur, India from 26-12-2016 to 30-12-2016
2. Coordinator of Self Financed Short Term Training Programme on “Building Materials Characterisation & Testing” organised at MNIT Jaipur, Jaipur, India from 06-06-2016 to 10-06-2016.
3. Coordinator of Self Financed Short Term Training Programme on “Building Materials Characterisation & Testing” organised at MNIT Jaipur, Jaipur, India from 01-06-2015 to 05-06-2015.
4. Symposium Chair of Fifth Asia and Pacific Young Researchers and Graduates Symposium on “Current Challenges in Structural Engineering” organised at Malaviya National Institute of

Technology from October 15-16, 2013. Symposium attended by participants from more than six countries

5. Coordinator of Short Term Faculty Development Programme on “Numerical & Computational Techniques in Engineering” organised by MNIT Jaipur, Jaipur, India from 17-12-2012 to 22-12-2012.
6. Coordinator of Technical Orientation Programme on “Soil & Other Material Properties and Base Map for Urban Infrastructure” for RUIDP Engineers from December 21-23, 2012.
7. Coordinator of Short Term Training Programme on “Natural Disaster Management” from October 29-31, 2012.
8. Coordinator of Technical Orientation Programme on “Soil & Other Material Properties and Base Map for Urban Infrastructure” for RUIDP Engineers from June 22-24, 2012.
9. Coordinator of Technical Orientation Programme on “Construction of Bridge, CD Works, ROB and RUB for Urban Areas” for RUIDP Engineers from Feb 24-26, 2012.
10. Coordinator of workshop on “AUTOCAD”, organised at Malaviya National Institute of Technology from October 23-24, 2009.
11. Joint Organising Secretary, National Conference on “Sustainable Concrete Infrastructure Development 2009” organised by Indian Concrete Institute and MNIT Jaipur, from May. 19-20, 2009.
12. Coordinator of Two week MHRD/AICTE sponsored winter school on “Soft Computing Skills in Engineering” organised at Malaviya National Institute of Technology from Dec. 11-24, 2008.
13. Coordinator of TEQIP funded workshop on “AUTOCAD”, organised at Malaviya National Institute of Technology from Sept. 20-21, 2008.
14. Coordinator of Two week MHRD/AICTE sponsored summer school on “Management and Mitigation of Natural Disasters” organised at Malaviya National Institute of Technology from July 14-26, 2008.
15. Organising Secretary and Convenor of two day National Seminar on “Recent Trends in Geotechnical and Structural Engineering” organised at Malaviya National Institute of Technology from Dec. 22-23, 2007.
16. Coordinator of two day training programme for Rajasthan Housing Board Engineers on “Multistoried Residential Apartments” organised at Malaviya National Institute of Technology from Dec. 08-09, 2007.
17. Coordinator of TEQIP funded staff development programme on “Finite Element Method”, organised at Malaviya National Institute of Technology from July 09-13, 2007.

EXTENSION TASKS AT INTERNATIONAL LEVEL

1. Chair of “Technical Committee 1: Design” of the Asian Concrete Federation since Oct 2016
2. Chaired a session of “7th International Conference of Asian Concrete Federation on Sustainable Concrete for now and the future” held at Hanoi, Vietnam from October 30-November 02, 2016
3. Chaired a session of “The 7th Asia-Pacific Young Researcher Graduate Symposium 2015” held at University of Malaya, Malaysia from August 20-August 21, 2015
4. International Steering Committee member of “The 7th Asia-Pacific Young Researcher Graduate Symposium 2015” held at University of Malaya, Malaysia from August 20-August 21, 2015
5. Chaired a session of “The 6th Asia-Pacific Young Researcher Graduate Symposium 2014”

held at SIIT, Thammasat University Thailand from July 31-August 01, 2014

6. International Steering committee member of “The 6th Asia-Pacific Young Researcher Graduate Symposium 2014” held at SIIT, Thammasat University Thailand from July 31-August 01, 2014
7. Member of International Scientific Committee of 10th International Symposium on Innovation & Utilization of High-Performance Concrete held at Beijing, China from September 16 to 18, 2014.
8. Chair of “The 5th Asia-Pacific Young Researcher Graduate Symposium 2013” held at Malaviya National Institute of Technology Jaipur on October 15-16, 2013
9. Co-Chairman of a session of Mini Symposium on Durability and Life Cycle Maintenance of Structure as part of First International Conference on Performance-based and Life-Cycle Structural Engineering (PLSE 2012) held on December 05-07, 2012 at Hong Kong, China.
10. International Steering Committee member of “The 4th Asia-Pacific Young Researcher Graduate Symposium 2012” held at The Hong Kong Polytechnic University on December 4-5, 2012.
11. Invited Lecture delivered in International Symposium on “Structural Assessment and Remediation of Infrastructure” held at Namseoul University, Cheonan, Choongnam-do, Korea on November 03, 2010

EXTENSION TASKS AT NATIONAL LEVEL

1. Member, Technical Committee, Centralised Counselling of M.Tech. for all National Institutes of Technology 2016
2. Member, Technical Committee, Centralised Counselling of M.Tech. for all National Institutes of Technology 2015
3. Special Invitee, Committee of Courses, Civil Engineering Department, College of Technology & Engineering, Maharana Pratap University of Agriculture & Technology, Udaipur, India (2015-2016).
4. Coordinator of Centralised Counselling of M.Tech. for all National Institutes of Technology of India for year 2014. 30 Institutes and 36,000 students participated in the CCMT 2014.
5. External Member, Committee of Courses, Civil Engineering Department, College of Technology & Engineering, Maharana Pratap University of Agriculture & Technology, Udaipur, India (July 2015- June 2018).
6. Technical Expert in the evaluation committee of Medical and Health Department, Government of Rajasthan, Rajasthan, India for the Construction of Prefabricated Structures all over Rajasthan. Construction Cost: INR 800 Crore
7. Member of the Committee constituted by Government of Rajasthan for the future expansion of RNT Medical College, Udaipur, India.
8. Member of Academic Advisory Committee of Applied Mechanics Department, SVNIT Surat, Surat, India since May 2012.
9. Member of Executive Body of “Indian Concrete Institute- Rajasthan State Centre” for two year term 2011-2013.
10. Technical committee member of “International Conference on Advances in Civil Engineering” held by K L University, Andhra Pradesh, India on October 21-23, 2011.
11. Technical committee member of “International Conference on Advances in Concrete, Structural and Geotechnical Engineering” held by BITS Pilani, India on October 25-27, 2009.

12. Keynote Speaker and Session Chairman for International Conference on Advances in Concrete, Structural and Geotechnical Engineering held on October 25-27, 2009 at BITS Pilani, Pilani, India.
13. Special Invitee for Workshop on “Curriculum Development for Implementing Academic Autonomy” held at Ujjain Engineering College, Ujjain, India from September 11-13, 2009.
14. Special Invitee, Committee of Courses, Civil Engineering Department, College of Technology & Engineering, Maharana Pratap University of Agriculture & Technology, Udaipur, India (2007-2008).
15. Expert in selection Boards of Public Service Commission of different states of India for Various Positions.

AWARDS AND SCHOLARSHIPS

1. Post-Doctoral research Fellowship granted by National Research Foundation, S. Korea (2010-2011)
2. QIP Fellowship for pursuing Ph.D. at IIT Delhi by Ministry of Human Resources Development, Government of India (2002-2005)
3. Merit Scholarship during B.E. (1993-1995)

MEMBERSHIP OF PROFESSIONAL BODIES

1. Indian Society for Technical Education, New Delhi (INDIA)
2. India Concrete Institute, Chennai (India)
3. Asian Concrete Federation

Papers published/Accepted for publication in International Journals:	42
Papers communicated in International Journals:	06
Papers published in National Journals:	04
Papers published in refereed Conferences:	41
Books (as Editor of Conference Proceedings):	03

International Referred Journals**Published/ Accepted for publication in International Refereed Journals**

- 1 Kumar, P., **Chaudhary, S.**, and Patnaik, A. (2016). "Application of structural adhesives in concrete and steel-concrete composite construction: A review." *International Journal of Adhesion and Adhesives*, 77, 1-14. (I.F. 2.21)
- 2 Gupta, T., Tiwari, A., Siddique, S., Sharma, R. K., and **Chaudhary, S.** (2017). "Response assessment under dynamic loading and microstructural investigations of rubberized concrete." *Journal of Materials in Civil Engineering*, ASCE. DOI: 10.1061/(ASCE)MT.1943-5533.000190. (I.F. 1.30)
- 3 Gupta, T., Siddique, S., Sharma, R. K., and **Chaudhary, S.** (2017). "Effect of elevated temperature and cooling regimes on mechanical and durability properties of rubberized concrete." *Construction and Building Materials*, 137, 35-45. (I.F. 2.42)
- 4 Patel, K. A., **Chaudhary, S.**, and Nagpal, A. K. (2017). "Neural network based approach for rapid prediction of deflections in RC beams considering cracking." *Computers and Concrete*, 19(3), 293-303. (I.F. 0.85)
- 5 Pendharkar, U., Patel, K. A., **Chaudhary, S.**, and Nagpal, A. K. (2017). "Closed form expressions for long-term deflections in high-rise composite frames." *International Journal of Steel Structures*, 17(1), 31-42. (I.F. 0.53)
- 6 Siddique, S., **Chaudhary, S.**, and Shrivastava, S. (2017). "Influence of ceramic waste on the fresh properties and compressive strength of concrete." *European Journal of Environmental and Civil Engineering*, DOI:10.1080/19648189.2016.127598. (I.F. 0.64)
- 7 Ramnavas, M. P., Patel, K. A., **Chaudhary, S.**, and Nagpal, A. K. (2017). "Service load analysis of composite frames using cracked span length frame element." *Engineering Structures*, 132, 733-744. (I.F. 1.89)
- 8 Patel, K. A., **Chaudhary, S.**, and Nagpal, A. K. (2017). "An automated computationally efficient two stage procedure for service load analysis of RC flexural members considering concrete cracking." *Engineering with Computers*, 33(3), 669-688 (I.F. 1.46)
- 9 Patel, K. A., **Chaudhary, S.**, and Nagpal, A. K. (2016). "An element incorporating cracking for reinforced concrete skeletal structures at service load." *Advances in Structural Engineering*, DOI: 10.1177/1369433216673642. (I.F. 0.58)
- 10 Patel, K. A., **Chaudhary, S.**, and Nagpal, A. K. (2016). "Rapid prediction of inelastic bending moments in RC beams considering cracking." *Computers and Concrete*, 18(6), 1113-1134. (I.F. 0.85)
- 11 Pendharkar, U., Patel, K. A., **Chaudhary, S.**, and Nagpal, A. K. (2016). "Rapid prediction of moments in high-rise composite frames considering cracking and time-effects." *Periodica Polytechnica Civil Engineering*, DOI: 10.3311/PPci.8210 (I.F. 0.27)

- 12 Gupta, T., Sharma, R. K., and **Chaudhary, S.** (2016). "Mechanical and durability properties of waste rubber fiber concrete with and without silica fume." *Journal of Cleaner Production*, 112, 702-711. (I.F. 4.96)
- 13 Kim, D., Wang, F., and **Chaudhary, S.** (2016). "Modal energy balance approach for seismic performance evaluation of building structures considering nonlinear behaviour." *Journal of Structural Integrity and Maintenance*, 1(1), 10-17.
- 14 Patel, K. A., **Chaudhary, S.**, and Nagpal, A. K. (2016). "A tension stiffening model for analysis of RC flexural members under service load." *Computers and Concrete*, 17(1), 29-51, (I.F. 0.85)
- 15 Tripathi, B., and **Chaudhary, S.** (2016). "Performance based evaluation of ISF slag as a substitute of natural sand in concrete." *Journal of Cleaner Production*, 112, 673-683. (I.F. 4.96)
- 16 Tripathi, B., Chandra, T., & **Chaudhary, S.** (2015). "Durability and dimensional stability of concrete containing zinc slag as sand." *ACI Special Publication*, 303, 217-236.
- 17 Gupta, R. K., Kumar, S., Patel, K. A., **Chaudhary, S.**, and Nagpal, A. K. (2015). "Rapid prediction of deflections in multi-span continuous composite bridges using neural networks." *International Journal of Steel Structures*, 15(4), 893-909. (I.F. 0.53)
- 18 Gupta, T., Sharma, R. K., and **Chaudhary, S.** (2015). "Influence of waste tyre fibers on strength, abrasion resistance and carbonation of concrete." *Scientia Iranica A*, 22(4), 1481-1489. (I.F. 0.68)
- 19 Ramnavas, M. P., Patel, K. A., **Chaudhary, S.**, and Nagpal, A. K. (2015). "Cracked span length beam element for service load analysis of steel concrete composite bridges." *Computers & Structures*, 157, 201-208. (I.F. 2.43)
- 20 Gupta, T., Sharma, R. K., and **Chaudhary, S.** (2015). "Impact resistance of concrete containing waste rubber fiber and silica fume." *International Journal of Impact Engineering*, 83, 76-87. (I.F. 2.65)
- 21 Pendharkar, U., Patel, K. A., **Chaudhary, S.**, and Nagpal, A. K. (2015). "Rapid prediction of long-term deflections in composite frames." *Steel and Composite Structures*, 18, 547-563 . (I.F. 1.80)
- 22 Patel, K. A., Bhardwaj, A., **Chaudhary, S.**, and Nagpal, A. K. (2014). "Explicit expression for effective moment of inertia of RC beams." *Latin American Journal of Solids and Structures*, 12, 542-560. (I.F. 0.83)
- 23 Gupta, T., **Chaudhary, S.**, and Sharma, R. K. (2014). "Assessment of mechanical and durability properties of concrete containing waste rubber tire as fine aggregate." *Construction and Building Materials*, 73, 562-574. (I.F. 2.42)
- 24 **Chaudhary, S.**, Pendharkar, U., Patel, K. A., and Nagpal, A. K. (2014). "Neural networks for deflections in continuous composite beams considering concrete cracking." *Iranian Journal of Science and Technology Transactions in Civil Engineering*, 38(CI⁺), 205-221. (I.F. 0.40)
- 25 Patel, K. A., **Chaudhary, S.**, and Nagpal, A. K. (2014). "Analytical-numerical procedure for cracking effect in RC beams." *Engineering Computations*, 31(5), 986-1010. (I.F. 0.69)
- 26 Vu, T. D., Lee, S. Y., **Chaudhary, S.**, and Kim, D. (2013). "Effects of tendon on static and dynamic behavior of CFTA girder." *Steel and Composite Structures*, 15(5), 567-583. (I.F. 1.80)
- 27 Varshney, L. K., Patel, K. A., **Chaudhary, S.**, and Nagpal, A. K. (2013). "Control of time-

- dependent effects in steel-concrete composite frames.” *International Journal of Steel Structures*, 13(4), 589-606. (I.F. 0.53)
- 28 Gupta, R. K., Patel, K. A., **Chaudhary, S.**, and Nagpal, A. K. (2013), "Closed form solution for deflection of composite bridges" *Procedia Engineering*, 51, 75-83.
- 29 Tripathi, B., Misra, A., and **Chaudhary, S.** (2013). “Strength and abrasion characteristics of ISF slag concrete at different w/c and sand replacements.” *Journal of Materials in Civil Engineering, ASCE*, 25(11), 1611-1688. (I.F. 1.30)
- 30 Cui, J., Kim, D., Koo, K. Y., and **Chaudhary, S.** (2012). “Structural model updating of steel box girder bridge using modal flexibility based deflections.” *The Baltic Journal of Road and Bridge Engineering*, 7(4), 253-260. (I.F. 0.52)
- 31 Tadesse, Z., Patel, K. A., **Chaudhary, S.**, and Nagpal, A. K. (2012). “Neural networks for prediction of deflection in composite bridges.” *Journal of Constructional Steel Research*, 68(1). 138-149. (I.F. 1.70)
- 32 Kim, D., **Chaudhary, S.**, Nocete, C. F., Wang, F., and Lee, D. H. (2011). “A probabilistic capacity spectrum strategy for the reliability analysis of bridge pile shafts considering soil structure interaction.” *Latin American Journal of Solids and Structures*, 8(3), 291-303. (I.F. 0.83)
- 33 Cho, S. G., Kim, D., and **Chaudhary, S.** (2011). “A simplified model for nonlinear seismic response analysis of equipment cabinets in nuclear power plants.” *Nuclear Engineering and Design*, 241(8), 2750-2757. (I.F. 0.97)
- 34 Pendharkar, U., **Chaudhary, S.**, and Nagpal, A. K. (2011). “Prediction of moments in composite frames considering cracking and time effects using neural network models.” *Structural Engineering and Mechanics*, 39(2), 267-285. (I.F. 1.02)
- 35 Pendharkar, U., **Chaudhary, S.**, and Nagpal, A. K. (2010). “Neural networks for inelastic mid-span deflections in continuous composite beams.” *Structural Engineering and Mechanics*, 36(2), 165-179. (I.F. 1.02)
- 36 **Chaudhary, S.**, Pendharkar, U., and Nagpal, A. K. (2009). “Control of creep and shrinkage effects in steel concrete composite bridges with precast decks.” *Journal of Bridge Engineering, ASCE*, 14(5), 336-345. (I.F. 1.07)
- 37 **Chaudhary, S.**, Pendharkar, U., and Nagpal, A. K. (2008). “Service load behavior of low rise composite frames considering creep, shrinkage and cracking.” *Latin American Journal of Solids and Structures*, 5(4), 237-258. (I.F. 0.83)
- 38 Pendharkar, U., **Chaudhary, S.**, and Nagpal, A. K. (2007). “Neural network for bending moment in continuous composite beams considering cracking and time effects in concrete.” *Engineering Structures*, 29(9), 2069-2079. (I.F. 1.89)
- 39 **Chaudhary, S.**, Pendharkar, U., and Nagpal, A. K. (2007). “Service load behavior of continuous composite beams with precast decks considering creep, shrinkage and cracking.” *Asian Journal of Civil Engineering*, 8(4), 425-444.
- 40 **Chaudhary, S.**, Pendharkar, U., and Nagpal, A. K. (2007). “Bending moment prediction for continuous composite beams by neural networks.” *Advances in Structural Engineering*, 10(4), 439-454. (I.F. 0.58)
- 41 **Chaudhary, S.**, Pendharkar, U., and Nagpal, A. K. (2007). “A hybrid procedure for cracking, creep, shrinkage and thermal gradient in continuous composite bridges.” *Latin American Journal of Solids and Structures*, 4(3), 203-227. (I.F. 0.83)
- 42 **Chaudhary, S.**, Pendharkar, U., and Nagpal, A. K. (2007). “An analytical-numerical

procedure for cracking and time-dependent effects in continuous composite beams under service load.” *Steel and Composite Structures*, 7(3), 219-240. (I.F. 1.80)

- 43 **Chaudhary, S.**, Pendharkar, U., and Nagpal, A. K. (2007). “Hybrid procedure for cracking and time-dependent effects in composite frames at service load.” *Journal of Structural Engineering, ASCE*, 133(2), 166-175. (I.F. 1.70)

Published in National Journals

- 1 Silayach, S., Patel, K. A., and **Chaudhary, S.** (2011). “Finite element study of graphite/epoxy laminates subjected to low-velocity transverse impact.” *International Journal of Earth Sciences and Engineering*, 4(6 SPL), 895-898. (
- 2 **Chaudhary, S.**, Kumari, S., and Agrawal, V. (2010). “Neural network application for structural design.” *International Journal of Earth Sciences and Engineering*, 3(1 SPL), 248-257.
- 3 Pendharkar, U., **Chaudhary, S.**, and Nagpal, A. K. (2006). “Sensitivity analysis for neural networks for inelastic deflection in continuous composite beams considering concrete” *Engineering and Environmental Sciences Journal*, 1(2), 1-10.
- 4 **Chaudhary, S.**, and Nagpal, A. K. (2005). “A procedure for cracking and time-dependent effects in continuous composite beams.” *Engineering and Environmental Sciences Journal*, 1(1), 1-19.

Conference Proceedings

- 1 Kumar, P., Gupta, R., and **Chaudhary, S.** (2016). “Behaviour of adhesive bonded and mechanically connected steel concrete composite under impact loading.” *The 11th International Symposium on Plasticity and Impact Mechanics*, December 11-14, **New Delhi, India** (Accepted for Publication in Procedia Engineering).
- 2 Banu, S., Choudhary, S., and **Chaudhary, S.** (2016). “Strength and carbonation study on fly ash based geopolymer mortar.” *Proc., 7th International Conference of Asian Concrete Federation on Sustainable Concrete for now and the future*, October 30-November 02, **Hanoi, Vietnam**.
- 3 Banu, S., Dave, U., and **Chaudhary, S.** (2016). “Effect of different type of curing on fly ash and slag based geo polymer concrete.” *Proc., International Conference on Recent Innovations in Engineering and Technology*, November 05-06, **Gunupur, India**.
- 4 Banu, S., and **Chaudhary, S.** (2016). “Effect of elevated temperatures on rubberized geo polymer mortar.” *Proc., International Conference on Recent Innovations in Engineering and Technology*, November 05-06, **Gunupur, India**.
- 5 Tripathi, B., Boehme, L., Chandra, T., and **Chaudhary, S.** (2016). “Research, education and training as part of an action-plan to start up a recycling policy in Jaipur, India.” *Proc., Central Europe towards Sustainable Building 2016*, June 22-24, **Prague, Czech Republic**, 1608-1615.
- 6 Banu, S., Dave, U., and **Chaudhary, S.** (2016). “Effect of different parameters on the compressive strength of rubberized geopolymer concrete.” *Multi-disciplinary Sustainable Engineering: Current and Future Trends: Proc., 5th Nirma University International Conference on Engineering*, November 26-28, **Ahmedabad, India**, CRC Press, 77-86.
- 7 Haldia, A., Siddique, S., Shrivastava, S., and **Chaudhary, S.** (2015). “A comparative study of fly ash bricks made with blend of clay brick waste and stone dust.” *Proc., Advances in*

Construction Technology and Management, February 19-20, **Nagpur**, India, RCTET, STM Journals, 60-67.

- 8 Gupta, T., **Chaudhary, S.**, and Sharma, R. K. (2015). "Influence of waste rubber tyre particles in concrete pavement." *Proc., Seventh Asia-Pacific Young Researchers & Graduates Symposium*, August 20-21, **Kualalumpur**, Malaysia, 32-39.
- 9 **Chaudhary, S.**, Pendharkar, U., Patel, K. A., and Nagpal, A. K. (2014). "Rapid prediction of long term deflection in high rise composite frames using neural networks." *Proc., Sixth Asia-Pacific Young Researchers & Graduates Symposium*, July 31-Aug 01, **Thailand**, 41-46.
- 10 Patel, K. A., **Chaudhary, S.**, and Nagpal, A. K. (2014). "An analytical-numerical procedure incorporating cracking in RC Frames at service load." *Proc., Sixth Asia-Pacific Young Researchers & Graduates Symposium*, July 31-Aug 01, **Thailand**, 53-58.
- 11 Patel, K. A., **Chaudhary, S.**, and Nagpal, A. K. (2013). "An element incorporating cracking in reinforced concrete beams at service load." *Proc., Fifth Asia-Pacific Young Researchers & Graduates Symposium*, October 15-16, **Jaipur**, 9-18.
- 12 Tripathi, B. and **Chaudhary, S.** (2013). "Suitability of ISF Slag as fine aggregate in concrete." *Proc., Fifth Asia-Pacific Young Researchers & Graduates Symposium*, October 15-16, **Jaipur**, 142-146.
- 13 Kumar, P. and **Chaudhary, S.** (2013). "Experimental investigations for shear bond strength of steel and concrete bonded by Epoxy" *Proc., Fifth Asia-Pacific Young Researchers & Graduates Symposium*, October 15-16, **Jaipur**, 165-171.
- 14 Gupta, T., Tripathi, B., Sharma, R. K., and **Chaudhary, S.** (2013). "Flexural strength, compressive strength and workability of waste rubber concrete." *Proc., Fifth Asia-Pacific Young Researchers & Graduates Symposium*, October 15-16, **Jaipur**, 320-327.
- 15 Alankar, K. and **Chaudhary, S.** (2012). "Cost optimization of composite beams using genetic algorithm and artificial neural network." *Proc., 2012 International Conference on Computer Technology and Science*, August 18-19, **New Delhi**, 24-28.
- 16 Tripathi, B. and **Chaudhary, S.** (2012). "Experimental assessment of drying shrinkage of ISF slag concrete." *Proc., Fourth Asia-Pacific Young Researchers & Graduates Symposium*, December 04-05, **Hong Kong**, 362-369.
- 17 Gupta, R. K., Patel, K. A., **Chaudhary, S.** and Nagpal, A. K. (2012). "An efficient finite-element model for flexible composite structures." *Proc., Fourth Asia-Pacific Young Researchers & Graduates Symposium*, December 04-05, **Hong Kong**, 115-122.
- 18 Tripathi, B., and **Chaudhary, S.** (2012). "Corrosion performance of high volume slag concrete at different W/C". *Proc., Twelfth International Conference on Recent Advances in Concrete Technology and Sustainability Issues*, Oct. 30-Nov. 02, 2012, **Prague**, 835-854.
- 19 Tripathi, B., Misra, A., and **Chaudhary, S.** (2012). "Permeability of concrete containing pyrometallurgical slag as partial replacement of sand," D.H., Bager, and J., Silfwerbrand, ed., *Concrete Structures for Sustainable Community, fib Symposium Stockholm 2012*, June 14-21, **Stockholm, Sweden**, 445-448.
- 20 Tripathi, B., Misra, A., and **Chaudhary, S.** (2012). "Durability of concrete containing ISF slag as partial replacement of sand," H., Justnes, and S., Jacobsen, ed., *Proc., International Congress on Durability of Concrete*, June 18-21, **Norway**, Abstract number A5-1.
- 21 Cho, S. G., Li, Y. Il, Kim, D., **Chaudhary, S.**, and Yoo, J. S. (2011). "A study on the nonlinear characteristics of electrical equipment cabinets under strong seismic motion." *Transactions, SMiRT 21*, November 06-11, **New Delhi**, India, Div-V, Paper ID#488.

- 22 **Chaudhary, S.**, Ali, A., Kim, D., and Cho, S. G. (2011). "Seismic analysis of steel-concrete composite walls of nuclear power plant structures." *Transactions, SMiRT 21*, November 06-11, **New Delhi**, India, Div-V, Paper ID#499.
- 23 **Chaudhary, S.**, Ali, A. Patel, K. A., Kim, D., and Cho, S. G. (2011). "Dynamic behaviour of steel-concrete composite shear wall." *Proc., The 2011 World Congress on Advances in Structural Engineering and Mechanics*, September 18-22, **Seoul, Korea**, 215-220.
- 24 **Chaudhary, S.**, Patel, K. A., Kim, D., Cho, S. G., and Ali, A. (2011). "Dynamic behaviour of steel-concrete composite floors." *Proc., 27th Conference of Korea Institute of Structural Maintenance Inspection and Korea Infrastructure Safety Corporation (Spring 2011)*, May 20, **Seoul, Korea**, 15(1), 167-170.
- 25 Patel, K. A., Kim, D., Chaudhary, I. P., and **Chaudhary, S.** (2011). "Service load behaviour of epoxy bonded steel-concrete composite bridges." *Proc., YRGS 2011*, March 25-26, **Taipei, Taiwan**, 142-149. (ISBN 978-986-85281-5-4).
- 26 Kim, D., Park, J., **Chaudhary, S.**, and Miah, M. S. (2011). "Spherical elastomeric bearing for noise and vibration reduction in railway bridges." *Proc., YRGS 2011*, March 25-26, **Taipei, Taiwan**, 377-381. (ISBN 978-986-85281-5-4).
- 27 **Chaudhary, S.**, Kim, D., Cho, S. G., Joe, Y. H., and Patel, K. A. (2011). "Seismic behaviour of steel-concrete composite floors in thermal power plants." *Proc., Earthquake Engineering Society of Korea 2011*, March 18, **Seoul, Korea**, 15, 49-52.
- 28 Kumari, S., and **Chaudhary, S.** (2010). "Strengthening of Steel-concrete composite beams." *Proc. International conference on Innovative World of Structural Engineering (ICIWSE-2010)*, December 25-27, Aurangabad, India, 881-888.
- 29 Kumari, S., Patel, K. A., and **Chaudhary, S.** (2010). "Finite element study of a bonded steel and concrete composite beam." *Proc., International conference on Innovative World of Structural Engineering (ICIWSE-2010)*, December 25-27, Aurangabad, India, 799-805.
- 30 **Chaudhary, S.**, and Kumari, S. (2009). "Effect of flexibility of shear connectors on service load behavior of steel-concrete composite structures." *Proc., Int. Conf. Advances in Mechanical and Building Sciences in the 3rd Millenium*, December 14-16, Vellore, India, 1757-1762.
- 31 **Chaudhary, S.**, and Nagpal, A. K. (2009). "Analysis and behaviour of composite structures at service load." *Proc., Int. Conf. Advances in Concrete, Structural and Geotechnical Engineering*, October 25-27, Pilani, India.
- 32 **Chaudhary, S.**, and Kumari, S. (2009). "Neural network-based structural monitoring and damage detection." *Proc., Civil Engg. Conference- Innovation without limits*, September 18-19, Hamirpur, India, 671-676. (ISBN 978-93-80043-34-1).
- 33 **Chaudhary, S.**, and Nagpal, A. K. (2009). "Simplified technique for the design of steel concrete composite beams using artificial neural networks." *Proc., the First International Conference on Soft Computing Technology in Civil, Structural and Environmental Engineering*, September 01-04, **Funchal, Madeira, Portugal**, Paper 31, 1-12 (ISSN 1759-3433).
- 34 Patel, K. A., Kumari, S., and **Chaudhary, S.** (2009). "Non-Linear behaviour of steel-concrete composite frames." *Proc. Sustainable Concrete Infrastructure Development (SCID-2009)*, May 19-20, Jaipur, India, 24-33. (ISBN 978-81-908723-1-7).
- 35 Naqvi, S. A. A., Bajpai, S., and **Chaudhary, S.** (2007). "Mortarless masonry system for accelerated construction." *Proc. Recent Trends in Geotechnical and Structural Engineering (RTGSE-2007)*, December 22-23, Jaipur, India, 33-39.
- 36 Pendharkar, U., **Chaudhary, S.**, and Nagpal, A. K. (2007). "Neural network model for short

term inelastic moments at interior supports of continuous composite beams.” *Proc. National Seminar on Soft Computing Methodology-07*, March 19-20, UEC Ujjain, India.

- 37 Naqvi, S. A. A. and **Chaudhary, S.** (2007). “Mortarless Masonry: An Overview.” *Proc. International Conference on Recent Developments in Structural Engineering (RDSE-2007)*, August 30-September 01, Manipal, India, 1471-1478.
- 38 **Chaudhary, S.**, Pendharkar, U., and Nagpal, A. K. (2007). “Time-dependent behavior of continuous composite beams.” *Proc., Third Int. Conf. Steel and Composite Structures*, July 30-August 01, **Manchester, UK**, 323-328 (ISBN 978-0-415-45141-3).
- 39 Pendharkar, U., **Chaudhary, S.**, and Nagpal, A. K. (2006). “Sensitivity analysis for predicting parameters for ANN for bending moment in continuous composite beams considering concrete cracking.” *Proc., Recent Advances in Computational Mechanics and Simulation*, December 08-10, IIT Guwahati, India, 138-144 (ISBN 978-8-189-86617-4).
- 40 Bharti, S. D., and **Chaudhary, S.** (2002). “Composite steel-concrete construction.” *Proc., National Seminar on Recent Trends in Civil Engineering*, Feb. 22-23, MBM Engg. College, Jodhpur, India, 307-308.
- 41 **Chaudhary, S.**, and Gupta, R. C. (2002). “Effect of grouting and reinforcement on hollow block masonry” *Proc., National Seminar on Recent Trends in Civil Engineering*, Feb. 22-23, MBM Engg. College, Jodhpur, India, 287-290.

Books (as Editor of Conference Proceedings)

- 1 **Chaudhary, S.**, and Tripathi, B. (2013). “Current Challenges in Structural Engineering.” *Excel India Publishers*, New Delhi, India (ISBN: 97898382880738).
- 2 Misra, A., and **Chaudhary, S.** (2009). “Sustainable Concrete Infrastructure Development.” *Alwar Printers*, Alwar, India (ISBN: 978-81-908723-1-7).
- 3 **Chaudhary, S.**, Tiwari, S. K., and Chaudhary, M. (2007). “Recent trends in Geotechnical and Structural Engineering.” *Akashdeep Publishers*, Jaipur, India.

MAJOR CONSULTANCY PROJECTS

1. “Proof Checking of Structural Design of Multistoried residential apartment located at Sun-City, Jaipur-Bikaner Highway, Jaipur” funded by Apeksha Infrastructures Pvt. Ltd., Jaipur (India):- Completed (Feb 2014 - June 2014). Amount: Rs. 11,23,600/-.
2. “Proof Checking of Various designs and drawings of Rajasthan Rural Water Supply and Mitigation Project” funded by Larsen & Toubro Limited. Ltd., Chennai (India):- Completed. Amount: Rs. 8,58,750/-.
3. “Proof checking of structural design and drawing of three ROB’s at Makrana, Kishangarh and Ajmer in Rajasthan” funded by Multimedia Consultants Pvt. Ltd., Ahmadabad, India (India):- Completed (Sept. 2012-Jan. 2013). Amount: Rs. 7,30,000/-
4. “Proof checking of structural design and drawing of bridge at Gambhiri river and ROB at Hindaun Bypass” funded by RSRDC Ltd., Jaipur (India):- Completed (August 2014-Feb 2016). Amount: Rs. 5,61,800/-.
5. “Proof Checking of Structural Design/Drawings for C/o 500 Bedded Boys Hostel and 210 Bedded Girls Hostel with provision for future vertical extension on III floor” funded by CPWD, Jaipur (India):- Completed (Sept 2014-Feb 2015). Amount: Rs. 5,61,800/-.
6. “Technical evaluation/quality assessment of PQC mix for cement content” funded by Airport Authority of India, Jaipur. (2012-2013). Amount: Rs. 5,61,800/-.
7. “Proof checking design of substructure of seventeen major railway bridges in the Swarupganj- Abu Road section of Ajmer division of north western railway” funded by Rail Vikas Nigam Limited:- Completed (Nov. 2011-April 2012). Amount: Rs. 5,51,500/-.

Ph.D. Thesis Supervision**Awarded**

S. No.	Name of Student	Title	Year	Co-guide
1	Bhavna Tripathi	Durability studies of concrete incorporating ISF Zinc slag as sand replacement.	2012	-
2	S.A.A. Naqvi	Behaviour of interlocking block masonry	2013	-
3	Kashyap A. Patel	Development of computationally efficient techniques for instantaneous and time-dependent analysis of reinforced concrete beams and frames at service load	2016	Prof. A. K. Nagpal (Main Supervisor)
4	Trilok Gupta	Strength, durability, ductility and fire performance of concrete containing waste rubber tyre ash and rubber fibers as partial replacement of fine aggregates	2016	Prof. Ravi Kr. Sharma
5	M. P. Ramnavas	Development of computational techniques for service load analysis of steel-concrete composite structures.	2016	Prof. A. K. Nagpal (Main Supervisor)

In Progress

S. No.	Name of Student	Title	Year	Co-guide
1	Pankaj Kumar	Experimental and numerical studies for the steel concrete composite structures bonded by epoxy	In Progress	Dr. Amar Kr. Patnaik
2	Salmabanu Luhar	Strength and durability studies on geopolymer concrete containing waste rubber fibre as partial replacement of sand	In Progress	-
3	Pooja Jain	Service Load behaviour of composite structures connected with bolts	In Progress	-
4	Salman Siddique	Performance assessment of fine bone china concrete	In Progress	Dr. Sandeep Shrivastava (Main Supervisor)
5	Sumit Kumar	Strength, durability, ductility and fire performance of concrete containing plastic waste	In Progress	
6	Ankit Bhardwaj	Experimental & numerical studies for the short term & long term behavior of epoxy bonded composite bridges	In Progress	Prof. A. K. Nagpal (Main Supervisor)

M.Tech. Thesis Supervision

S.No.	Name	Title	Year	Co-guide
1	Ram Swaroop Mandolia	Effect of different hydrophobic treatments on properties of recycled aggregate concrete.	2017	
2.	Ashutosh Gupta	Numerical Analysis of Steel-Concrete Composite Girder Under Cyclic Loading	2017	
3.	Suman Choudhary	Strength and durability studies of alkali-activated fly ash based geopolymer mortar	2016	-
4.	Rahul Karwasra	Effect of position of single reinforcement layer in steel-concrete composite section	2016	-
5.	Jayesh Teli	Effect of position of double reinforcement layer on composite sections	2016	-
6.	Pradeep Kumar	Effect of concrete strength on behaviour of mechanical connection in steel concrete composite section	2015	-
7.	Nawal Kr. Dwivedi	Effect of Reinforcement Detailing on Shear Connection in Steel-Concrete Composite Structures.	2015	-
8.	Minhaj Majeed	Cost Optimisation of Flexibly Connected Composite Beams	2014	-
9.	Ashish Garg	Study of Behaviour of Recycled Coarse Aggregates in Addition with Cast Iron/Mild Steel Powder in Concrete	2014	
10.	Pankaj Kumar	Experimental Investigations for Shear Bond Strength of Steel and Concrete Bonded by Epoxy	2013	-
11.	Rupesh Ramesh Gawas	Optimisation of Simply Supported Beams Using Genetic Algorithm Technique	2013	-
12.	Bhawmesh Kuldeep	Effect of Skewness on Three Span Reinforced Concrete T Girder Bridges	2013	Prof. R. Nagar
13.	Vimal Kumar	Finite Element analysis of Interlocking Masonry	2012	Prof. R. Nagar
14.	Durgesh Nandini Bairwa	Comparative Study of Space Structural Forms under Gravity and Lateral Loads	2012	Prof. R. Nagar
15	Gaurav Saraswat	Prediction of Ultimate Shear Strength of Reinforced Concrete Beams Using Artificial Neural Network	2010	-

16	Indra P. Choudhary	3-D Finite Element Study of Bonded and Mechanically Connected Steel-Concrete Composite Beams	2010	-
17	Suchindra Silayach	Behaviour of Graphite/Epoxy laminates subjected to low velocity transverse impact.	2009	-
18	Kashyap Patel	Non linear behaviour of steel-concrete composite frames.	2009	-
19	Addisu Shewarega	Development of hybrid analytical numerical procedure for service load analysis of composite frames and beams using step-by-step method for modeling of time dependent effects of creep and shrinkage phenomena	2009	Prof. A. K. Nagpal
20	Ashish Yadav	Development of Neural networks for prediction of deflection of composite frame considering non-linearities-flexibility of shear connection, cracking of concrete and yielding of steel.	2009	Prof. A. K. Nagpal
21	Kasi Viswanath	Development of Neural networks for prediction of deflection of composite bridges considering non-linearities-flexibility of shear connection, cracking of concrete and yielding of steel	2009	Prof. A. K. Nagpal
22	Sunil Kumar	Behaviour of tall composite building frames considering cracking of concrete, creep and shrinkage subjected to service load.	2009	Prof. A. K. Nagpal
23	Lalit Kr. Varshney	Control of Cracking, Creep and Shrinkage Effects in Steel Concrete Composite Frames.	2009	Prof. A. K. Nagpal
24	Amit Kr. Garg	Behaviour of steel concrete composite frames.	2008	-
25	Deepak Gaur	Computer aided design of footings	2005	-
26	Neeraj Gupta	Castellated Beam- Analysis and Design	2005	-
27	Pawan Singhania	Reinforced Block Masonry	2005	-
28	Kapil Sarawagi	Cost Comparison of Multistoreyed Buildings in Earthquake Zones	2005	-
29	Pramiti Tiwari	Computer Aided Design of Composite TEE Beam Bridge	2001	Dr. M. K. Shrimali
30	Rajesh Poonia	Study of Various Methods of Concrete Mix Design	2001	-
31	Sudhir Verma	Study of Soil Classification Systems	2001	-
32	Ajay Saxena	Risk and Safety Margins in Structural Design	2000	-