

Profile Page



Name : Dr. Shailja Bawa
Designation : Assistant Professor Grade-i
Department : Civil Engineering
Qualification : Civil Engineering NIT Jalandhar (2020)
M Tech Highways Engg (PEC Chandigarh)
B Tech Civil Engineering (REC Jalandhar)
Address : H No 07
Kalia Colony
Jalandhar, Punjab - 144008
Email : bawas@nitj.ac.in
Phone : 8283821380

Research Interests :

Self Compacting Concrete, Fatigue, Rigid Pavements

Other Profile Links :

Google Scholar Link :

Google Scholar [Click Here](#)

Personal Web Link :

Research Gate [Click Here](#)

Journal Publications :

Year	Journal	Publication
2023	Innovative Infrastructure Solutions (2023) 8:126	Evaluation of performance of hybrid fiber reinforced self compacting concrete using non destructive testing techniques, Shailja Bawa · Pravez Alam · Shivam Saini
2022	Materials today: proceedings (Elsevier), Volume 52, Part 3, Pages 1368-1376	Km Komal, Shailja Bawa, Shashi Kant Sharma, Laboratory Investigation on the effect of Polypropylene and Nylon fiber on silt stabilized clay
2022	Materials Today (Elsevier), Volume 59, Part 3, Pages 1683-1693	Self-Compacting geopolymer Concrete: A review
2019	Journal of Materials and Engineering Structures, Vol. 5, No. 4, pp. 333-346	S Bawa and S P Singh, "Flexural performance and toughness evaluation of hybrid steel polypropylene fibre reinforced self-compacting concrete"
2019	Construction Materials, Institution of Civil Engineers, UK	S Bawa and S P Singh (2019), "Flexural Fatigue Strength Prediction of Hybrid Fibre Reinforced Self Compacting Concrete"

2019	An International Journal, Coupled Systems Mechanics, Vol 8. Techno Press Publisher	K.Senthil, A. Singhal, S. Bawa (2019), "Damage Mechanism and Stress Response of Reinforced Concrete Slab under Blast Loading"
2019	Innovative Infrastructure Solutions Vol. 4, No. 1 Dec 2019, pp. 57	S Bawa and S P Singh, "Fatigue performance of self compacting concrete containing hybrid steel-polypropylene fibres ".
2018	Construction Materials, Institution of Civil Engineers, UK	S Bawa and S P Singh (2018), "Analysis of fatigue life of hybrid fibre reinforced self-compacting concrete"
2018	Journal of Structural Engineering & Applied Mechanics, 2018, Volume 1, Issue 3, Pages- 105-116	K. senthil, ShailjaBawa, CP Aswin, "Influence of Concrete Strength and Diameter of Reinforcing Bar on Pullout Tests using Finite Element Analysis"
2016	Journal of Civil Engineering and Environmental Technology, P - ISSN: 2349 – 8404, e – ISSN: 2349 – 879, Volume 3, Issue1; pp 39-43.	Preetpal Singh, ShailjaBawa, AkashPriyadarshi and Gurjeet Kumar, "Influence of Fly Ash on the properties of soil: A Review"
2016	Journal of Civil Engineering and Environmental Technology, P – ISSN: 2349 – 8404, e – ISSN: 2349 – 879, Volume 3, Issue 1; pp 23 – 27	Preetpal Singh, ShailjaBawa, AkashPriyadarshiand Gurjeet Kumar "Influence of Tire Chips on the behaviour of soil"
2004	New Building Material & Construction World. Feb 2004, PP. 52-56	R.K. Khitoliya & Shailja Bawa, "Study of Environmental Impacts of a Highway Project – A case study"

Conference Publications :

Year	Conference	Publication
2023	7th International Conference on Civil Engineering (ICOCE 2023), NTU Singapore	Prediction of Flexural Fatigue Lives of Fibre Reinforced Self-Compacting Concrete
2023	National Conference on Innovation in Civil Engineering	Reducing Environmental and Health Hazards of Waste Tires through Stabilization Techniques: A Review Pravez Alam , Shailja Bawa
2023	2nd International Conference on Innovations in Clean Energy Technologies, MNIT Bhopal	Behaviour of slender buildings under seismic loading with outriggers Ashish Bharitkar, Shailja Bawa
2021	International Conference on Recent Development on Materials, Reliability, Safety and Environmental Issues IMRSE– 2021	Km Komal, Dr. Shailja Bawa, Dr. Shashikant Sharma and Gemini Durgapal , "Improving strength of expansive soil using polypropylene and nylon fiber -a review",
2021	International Conference on Recent Development on Materials, Reliability, Safety and Environmental Issues IMRSE– 2021	Gemini Durgapal, Shailja Bawa, Shashikant Sharma & Km Komal (2021), "Review of leachate treatment techniques"
2021	Smart and Sustainable Developments in Materials, Manufacturing and Energy Engineering (SME-2021) organized by Department of Mechanical Engineering, NMAM Institute of technology, Nitte on Nov 19-20, 2021.	Km Komal, Dr. Shailja Bawa, Dr. Shashikant Sharma (2021), "Laboratory Investigation on the effect of polypropylene and Nylon fiber on silt stabilized clay"
2021	ICRACE-2021: International Conference on Recent Advances in Civil Engineering, National Institute of Technology Silchar, India, September 17-19, 2021	• Anand Kumar, Shailja Bawa and Dr. M Abdul Akbar (2021), "Analysis of I-section composite beam with winding wire and metal strap for development of effective bond"

2021	Indo European Conference on Sustainable Materials, Environment & Construction (COSMEC-2021), University Center for Research and Development and Department of Civil Engineering, Chandigarh University on 23 & 24 September, 2021 at Chandigarh University	• Amit Rana, S P Singh, Shailja Bawa, A Kumar (2021), “Strength and Flexural Toughness of Hybrid Fibre Reinforced Flyash based Concrete”
2020	International Conference on Recent Advances in Computational and Experimental Mechanics, September 4-6, 2020, IIT Kharagpur,	Mukul Srivastava & Shailja Bawa, "Effectiveness of Tuned Liquid Dampers in Improving Seismic Response of High Rise Reinforced Concrete Buildings"
2020	5th ONLINE INTERNATIONAL CONFERENCE ON RECENT ADVANCEMENTS IN INTERDISCIPLINARY RESEARCH (ICRAIR-2020) Multimedia University (MMU), Malaysia 25th - 26th July 2020	Mukul Srivastava & Shailja Bawa, "EFFECTIVE CONTROL OF RESPONSE OF A REINFORCED CONCRETE BUILDING UNDER SEISMIC LOADS USING TUNED LIQUID DAMPER"
2020	International Conference on Sustainability and Equity, Theme: Digital Society, (Scopus Indexed)	Applications of machine learning in crack detection of structures
2020	International Conference on Sustainability and Equity, Theme: Digital Society, (Scopus Indexed)	Review of AI Applications in Geotechnical Engineering
2020	International Conference on Sustainability and Equity, Theme: Digital Society, (Scopus Indexed)	Machine Learning as a Part of Traffic Control Measure in Intelligent Transport Systems- A Review
2019	5th International Conference on Data Science and Engineering (ICDSE), Indian Institute of Technology Patna, 26-28 September.	Sinha, D.K., Rupali, S. and Bawa, S. (2019) “Application of Adaptive Neuro-Fuzzy Inference System for the prediction of Early Age Strength of High Performance Concrete”
2019	International UKIERI Concrete Congress-Concrete: The Global Builder, Jalandhar, India, 5-8 March 2019	K.Senthil, H. Kumar, S. Bawa (2019), “Studies on Mechanical Properties of Geopolymer Concrete Using Recycled Concrete Aggregate”.
2019	International Conference on Materials Science and Engineering, 11-12 June 2019	A. Tanzeem, K. Senthil, Shailja Bawa (2019), “Response of reinforced concrete column with steel and FRP jackets under uniaxial loading”
2019	Sustainable Construction Materials & Technologies 5 (2019), Kingston University, London, UK	S. Bawa, M. Singh, "Properties of Concrete Incorporating Metakaolin, Flyash and Recycled Concrete Aggregates"
2019	International UKIERI Concrete Congress-Concrete: The Global Builder, Jalandhar	S Bawa and S P Singh (2019), “Prediction of mean and design fatigue lives of plain and fibre reinforced self-compacting concrete beams in flexure”
2019	International UKIERI Concrete Congress-Concrete: The Global Builder, Jalandhar	S Bawa and S P Singh, “Flexural fatigue performance of hybrid fibrous self-compacting concrete for bridge decks”
2018	National conference on Advanced Structures, Materials and Methodology in Civil Engineering, NIT Jalandhar.	ShailjaBawa, Baban Kumar, AsifBasheer, “Mechanical Properties of Concrete Containing Steel Slag as Partial Replacement for Fine Aggregates”
2018	National conference on Advanced Structures, Materials and Methodology in Civil Engineering, NIT Jalandhar	K. Senthil, ShailjaBawa, A. Rana, J.K. Saurabh, A. Tanzeem, “Study on Influence of Thickness and Span Length of Flat Slab for Progressive Collapse”
2018	National conference on Advanced Structures, Materials and Methodology in Civil Engineering, NIT Jalandhar	Vipasha Rishi, K. Senthil, JatinAnand, S. Rupali, ShailjaBawa, “Influence of Lime and Chicken Mesh on Compaction Properties of Soil”,
2018	National conference on Advanced Structures, Materials and Methodology in Civil Engineering, NIT Jalandhar	Akhilsinghal, K. Senthil, ShailjaBawa, “Influence of Boundary Conditions and Mass of TNT on the behaviour of Concrete Slab under Blast Loading”

2016	National Conference on innovations without limits in civil engineering (IWLCE 2016), 18-19 March, JNGEC, Sundernagar, Mandi, pp 80 – 87	Preetpal Singh, Shailja Bawa and Akash Priyadarshi, “Effect of Rice husk ash on the properties of black cotton soil”
2016	National conference on innovations without limits in civil engineering (IWLCE 2016)pp 80 – 87	Preetpal Singh, ShailjaBawa and AkashPriyadarshi, “Effect of Rice husk ash on the properties of black cotton soil”
2002	The Institution of Engineers (India), Seventeenth Indian Engineering Congress, Patna, Vol – II, Dec 2002, PP 153-158	R.K. Khitoliya & Shailja Bawa, “Study Of Environmental Issues For Sustainability Of Highway Project Near Ropar, Punjab”

Book/Chapter Publications :

Type	Title	Publisher	Authors	ISBN/ISS N No.	Year
Book Chapter	Lecture Notes in Civil Engineering, Vol 274	Springer	Kumar A.;Bawa S.;Abdul Akbar M. Analysis of I-Section Composite Beam with Winding Wire and Metal Strap for Development of Effective Bond, Pages 291-305 DOI:10.1007/978-981-19-4055-2_24	978-981-19-4055-2	2023
Book Chapter	Advancement in Materials, Manufacturing and Energy Engineering, Vol. I	Springer	Srivastava, Mukul & Bawa, Shailja & Sharma, Ujjwal. (2022). Effective Control of Response of a Reinforced Concrete Building Under Seismic Loads Using Tuned Liquid Damper. Lecture Notes in Mechanical Engineering, pp 449-463	978-981-16-5371-1	2022
Book Chapter	Analysis of I-section composite beam with winding wire and metal strap for development of effective bond	Lecture Notes in Civil Engineering, Springer Nature	Anand Kumar, Shailja Bawa and Dr. M Abdul Akbar		2021
Book	Railway Engineering	Alexis Press, New York, USA	S Bawa, S Sharma	978-1-64532-114-9	2020

Book Chapter	Use of Computer Aided Techniques for Defects Identification in Infrastructure	Red'Shine, Sweden	Shailja Bawa, Shashi Kant Sharma	9781716362873	2020
Book Chapter	Properties of Concrete Incorporating Metakaolin, Flyash and Recycled Concrete Aggregates	Sustainable Construction Materials & Technologies 5, Vol 3, pp. 436-444	• S. Bawa and M. Singh	978-1-716-36287-3	2019

Events Organized :

Category	Type	Title	Venue	From	To	Designation
STC	National	Advances in Construction Materials and Methods	NIT Jalandhar	01-07-2019	05-07-2019	Coordinator
STC	National	Emerging Trends in Highway Engineering and Infrastructure Development	Online	23-06-20	27-06-20	Coordinator
STC	National	Prospects of Sustainability in Pavement Construction in India	Online	14-07-20	18-07-20	Coordinator
STC	National	Construction Material & Methods in Civil Engineering	online	25-08-20	29-08-20	Coordinator
STC	National	Analysis and Design of Structures: Practices and Challenges	NIT Jalandhar (Online)	15-02-2021	19-02-2021	Convener

Professional Affiliations :

Designation	Organization
Associate Member Membership No. (AM1774223)	Institution of Engineers, India
Life Member Membership No. 236886	IAENG
Affiliate Member, ID:11966375	American Society of Civil Engineers (ASCE)
Member, Membership No 13003	Indian Concrete Institute
Life Member	Indian Geotechnical Society (Membership No. : LM 5064)
Life Member	Indian Road Congress (Membership No. : 103009)

PhD Supervised :

Scholar Name	Research Topic	Status	Year	Co-Supervisor
Sajan Sharma	Geopolymer Concrete	On going	2023	
Pravez Alam	Ground Improvement	On going	2022	

Admin. Responsibilities :

Position Held	Organization	From	To
Faculty Coordinator of Society of Civil Engineers	Dr. B R Ambedkar national Institute of Technology, Jalandhar (Department level)	2007	2009
Faculty Incharge of Departmental Library	Dr. B R Ambedkar national Institute of Technology, Jalandhar (Department level)	2008	2017
Time Table Incharge of Civil Engineering Department	Dr. B R Ambedkar national Institute of Technology, Jalandhar (Department level)	2008	2017
Lab Incharge of Highways Engineering Lab	Dr. B R Ambedkar national Institute of Technology, Jalandhar (Department level)	2007	2017
Lab Incharge of Surveying lab	Dr. B R Ambedkar national Institute of Technology, Jalandhar (Department level)	2007	2017
Member of Department BOS	Dr. B R Ambedkar national Institute of Technology, Jalandhar (Department level)	2007	Till date
Member of Counselling Cell	Dr. B R Ambedkar national Institute of Technology, Jalandhar (Institute level)	2015	2016
Member of Anti ragging squad/Physical Verification Team	Dr. B R Ambedkar national Institute of Technology, Jalandhar (Institute level)	2007	Till Date
Coordinator of Fine Arts Society	Dr. B R Ambedkar national Institute of Technology, Jalandhar (Institute level)	2015	2020
Co-cordinator Cultural Affairs	Dr B R Ambedkar National Institute of Technology, Jalandhar	March 2021	Till Date

Award and Honours :

Title	Activity	Given by	Year
Best Paper Presentation	7th International Conference on Civil Engineering, ICOCE 2023, Singapore	ICOCE conference chair	2023