

Profile Page



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PhD Mechanical Engineering (Design) (IIT Delhi)
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Research Interests :

Active noise control, Active structural-acoustic control, Active vibration control, Vibro-acoustics, Finite element methods, Experimental modal analysis, Finite element model updating, Mechanical vibrations

Other Profile Links :

Google Scholar Link :

Ashok Kumar Bagha [Click Here](#)

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Journal Publications :

Year	Journal	Publication
2020	Advances in Building Energy Research	Sanjay Kumar, Anuj Mathur, Rajeev Kukreja, Ashok Kumar Bagha, Quantification of thermal environments and comfort expectations of residents in hostel dormitories during hot and humid days in Indian composite climate, 14, March 2020
2020	Materials Today: Proceedings	Sanjeev Kumar, Shankar Sehgal, Surjeet Singh, Ashok Kumar Bagha, " Investigations on material characterization of joints produced using microwave hybrid heating"

2020	Materials Today: Proceedings	Ankush Kesharwani, Raman Bedi, Ashok Kumar Bagha, Shashi Bahl, "Experimental study to measure the sound transmission loss of natural fibers at tonal excitations"
2020	Materials Today: Proceedings	Shashi Bahl, Rameshwar Cambow, Ashok Kumar Bagha, "An experimental study to measure the acoustical properties of natural fibers at real case broadband excitations"
2020	Materials Today: Proceedings, 26, 1567-1571	Shashi Kushwaha, Ashok Kumar Bagha, "Application of composite materials for vibroacoustic–A review"
2020	Materials Today: Proceedings, 26, 2502-2505	Anoop Kumar, Shankar Sehgal, Surjeet Singh, Ashok Kumar Bagha, "Joining of SS304-SS316 through novel microwave hybrid heating technique without filler material"
2020	Materials Today: Proceedings, 26, 1279-1283	Rahul Samyal, Ashok Kumar Bagha, Raman Bedi, "The casting of materials using microwave energy: A review"
2020	Materials Today: Proceedings	Anil Kumar, Sagar Claire, Jatin Khanna, Nikhil Dhadwal, Nakul Ninama, Ashok Kumar Bagha, "Experimental study to measure the sound transmission loss and equivalent continuous sound pressure level of composite material for various disturbances"
2020	Materials Today: Proceedings, 26, 423-433	Rahul Samyal, Ashok Kumar Bagha, Raman Bedi, "Microwave joining of similar/dissimilar metals and its characterizations: A review"
2020	Materials Today: Proceedings, 26, 482-486	Mohit Kumar Saini, Ashok Kumar Bagha, Sanjay Kumar, "Experimental study to measure the transmission loss of double panel natural fibers"
2020	Materials Today Proceedings	Rahul Samyal, Ashok Kumar Bagha, Raman Bedi, "An experimental study to predict the exposure time for microwave based joining of different grades of stainless steel material"
2020	Apollo Medicine	Rajiv Suman Shashi Bahl, Mohd Javaid, Ashok Kumar Bagha, Ravi Pratap Singh, Abid Haleem, Raju Vaishya, "Biosensors Applications in Fighting COVID-19 Pandemic"
2020	Apollo Medicine	Abid Haleem Abhishek Sharma, Shashi Bahl, Ashok Kumar Bagha, Mohd Javaid, Dinesh Kumar Shukla, "Multi-Agent System Applications to Fight COVID-19 Pandemic"
2020	Materials Today: Proceedings	Ashok Kumar Bagha, Shashi Bahl, "Finite element analysis of VGCF/pp reinforced square representative volume element to predict its mechanical properties for different loadings"
2020	Materials Today: Proceedings	Ashok Kumar Bagha, Shashi Bahl, "Finite element modeling and simulation of the fiber–matrix interface in fiber reinforced metal matrix composites"
2019	Materials Today: Proceedings	Sahil Nandwani, Sachit Vardhan, Ashok Kumar Bagha, "A literature review on the exposure time of microwave based welding of different materials"
2019	Materials Today: Proceedings	Ashok Kumar Bagha, Prashant Gupta, Varun Panwar, "Finite element model updating of a composite material beam using direct updating method"
2019	Materials Today Proceedings	Rahul Samyal, Ashok Kumar Bagha, Raman Bedi, "An experimental study to predict the exposure time for microwave based joining of different grades of stainless steel material"
2019	Materials Today: Proceedings	Ashok Kumar Bagha, Prashant Gupta, Varun Panwar, "Finite element model updating of a composite material beam using direct updating method"
2019	Materials Today: Proceedings	Sahil Nandwani, Sachit Vardhan, Ashok Kumar Bagha, "A literature review on the exposure time of microwave based welding of different materials"
2019	Materials Today: Proceedings	Rahul Samyal, Sukhjeet Singh, Ashok K Bagha, "Modal Analysis of Composite Panel at different Fiber Orientations"

2018	Materials Today: Proceedings 5 (2018) 27912–27918.	• Varun Panwar, Prashant Gupta, Ashok K Bagha, Nitin Chauhan, “A Review on studies of Finite Element Model Updating and Updating of Composite Materials”,
2018	Materials Today: Proceedings 5 (2018) 28364–28373	• Rameshwar Cambow, Manpreet Singh, Ashok K Bagha, Harpreet Singh, “To compare the effect of different level of self- lubrication for bearings using statistical analysis of vibration signal”,
2017	Journal of Smart Structures and Systems, An International Journal 20 (3), 2017, 273-283	• Ashok K Bagha and S V Modak, “Feedback control strategies for active control of noise inside a 3-D vibro-acoustic cavity”,
2017	Journal of the Low Frequency, Noise Vibration and Active Control , 36 (3), 2017, 261-276	• Ashok K Bagha and S V Modak, “Active structural-acoustic control of interior noise in a vibro-acoustic cavity incorporating system identification”,
2017	International Journal of Mechanical Engineering and Technology, 18 (7), 2017, 1225-1230	• Tharun Kumar and Ashok K Bagha, “Choice of optimal location of collocated piezoelectric sensors on steel plate using mode shapes”,
2015	Journal of the Acoustical Society of America (JASA), 138 (1), July 2015, 11–21	• Ashok K Bagha and S V Modak, “Structural sensing of interior sound for active control of noise in structural-acoustic cavities”,
2015	Journal of the Acoustical Society of India (JASI), 42 (2), April 2015, 84– 94	• Ashok K Bagha and S V Modak, “Feedback Control strategies for Active Structural-Acoustic Control of Interior Noise”,

Conference Publications :

Year	Conference	Publication
2020	10th International Conference of Materials Processing and Characterization, GLA University Mathura, 21st -23rd February 2020	Mohit Kumar Saini, Ashok Kumar Bagha, Sanjay Kumar, "Experimental study to measure the transmission loss of double panel natural fibers"
2020	10th International Conference of Materials Processing and Characterization, GLA University Mathura, 21st -23rd February 2020	Rahul Samyal, Ashok Kumar Bagha, Raman Bedi, "Microwave joining of similar/dissimilar metals and its characterizations: A review"
2020	10th International Conference of Materials Processing and Characterization, GLA University Mathura, 21st -23rd February 2020	Rahul Samyal, Ashok Kumar Bagha, Raman Bedi, "The casting of materials using microwave energy: A review"
2020	10th International Conference of Materials Processing and Characterization, GLA University Mathura, 21st -23rd February 2020	Anoop Kumar, Shankar Sehgal, Surjeet Singh, Ashok Kumar Bagha, "Joining of SS304-SS316 through novel microwave hybrid heating technique without filler material"
2020	10th International Conference of Materials Processing and Characterization, GLA University Mathura, 21st -23rd February 2020	Shashi Kushwaha, Ashok Kumar Bagha, "Application of composite materials for vibroacoustic – A review"
2020	International Conference on Aspects of Materials Science and Engineering ICAMSE 2020	Ankush Kesharwani, Raman Bedi, Ashok Kumar Bagha, Shashi Bahl, "Experimental study to measure the sound transmission loss of natural fibers at tonal excitations"
2020	International Conference on Advanced Materials and Modern Manufacturing	Ashok KUMAR Bagha, Shashi Bahl, "Finite element analysis on VGCF/PP reinforced square RVE to predict its mechanical properties for different loadings"

2020	International Conference on Aspects of Materials Science and Engineering ICAMSE 2020	Shashi Bahl, Rameshwar Cambow, Ashok Kumar Bagha, " An experimental study to measure the acoustical properties of natural fibers at real case broadband excitations"
2020	International Conference on Advanced Materials and Modern Manufacturing	Shashi Bahl, Ashok Kumar Bagha, "Finite element modeling and simulation of the fiber-matrix interface in fiber reinforced metal matrix composites"
2020	International Conference on Aspects of Materials Science and Engineering ICAMSE 2020	Sanjeev Kumar , Shankar Sehgal,* , Surjeet singh , Ashok Kumar Bagha, "Investigations on material characterization of joints produced using microwave hybrid heating"
2019	1st International Conference on Materials Science & Engineering	Ankush Kesharwani, Raman Bedi, Ashok Kumar Bagha, "Experimental study to measure the equivalent continuous A-weighted sound pressure level of hemp material for train noise"
2019	International Multidisciplinary Academic Research Conference	Sahil Nandwani, Sachit Vardhan, Ashok Kumar Bagha, "Microwave Joining of composite materials- A short review"
2019	International Conference on Emerging Trends in Traditional and Technical Textiles	Ankush Kesharwani, Mohit Kumar Saini, Raman Bedi, Ashok Kumar Bagha, "Experimental study to measure the equivalent continuous A-weighted sound pressure level of natural fiber-air-natural fiber materials at broadband excitations"
2019	International Conference on Emerging Trends in Traditional and Technical Textiles, Dr. B R Ambedkar National Institute of Technology Jalandhar, 1st-3rd November 2019	Divyansu Sharma, Shivam Singla, Aman Deepak Jogendra Pratap Singh, Mohit Kumar, Ashok Kumar Bagha, "Experimental study to measure the equivalent continuous A-weighted sound pressure level of double panel natural fibers at white noise excitations"
2019	International Conference on Materials and Manufacturing Methods, National Institute of Technology, Trichy, 5th-7th July 2019	Rahul Samyal, Ashok Kumar Bagha, Raman Bedi, "An experimental study to predict the exposure time for microwave based joining of different grades of stainless steel material"
2019	International Conference on Materials and Manufacturing Methods, National Institute of Technology, Trichy, 5th-7th July 2019	Ashok Kumar Bagha, Prashant Gupta, Varun Panwar, "Finite element model updating of a composite material beam using direct updating method",
2019	International Conference on Materials and Manufacturing Methods, National Institute of Technology, Trichy, 5th-7th July 2019	Sahil Nandwani, Sachit Vardhan, Ashok Kumar Bagha, "A literature review on the exposure time of microwave based welding of different materials"
2019	International Conference on Materials and Manufacturing Methods, National Institute of Technology, Trichy, 5th-7th July 2019	Anil Kumar, Sagar Claire, Jatin Khanna, Nikhil Dhadwal, Nakul Ninama, Ashok Kumar Bagha, "Experimental study to measure the sound transmission loss and equivalent continuous sound pressure level of composite material for various disturbances"
2018	Proceedings of the 19th ISME conference on Advances in Mechanical Engineering, held at NIT Jalandhar, December 20-22, 2018	Ankush Kesharwani, Raman Bedi and A K Bagha, "Natural Fiber Composites for Sound Reduction: A Review"
2018	Soft Computing: Theories and Applications (SOCTA) - 2018, held at NIT Jalandhar, 21-23 December 2018	Ashok Kumar Bagha, " An Adaptive Feedforward filtered-x LMS Algorithm for Interior Noise Control – A short review"
2017	Proceedings of ICCAE-17, Feb. 18-21, 2017, Sydney, Australia, 264-268, ACM Digital Library, 264-268	• Ashok K Bagha and S V Modak, "Active structural-acoustic control of interior noise using direct output feedback-an experimental study",

2017	IOP Conf. Series: Materials Science and Engineering 225 (2017), 1-7	• Rahul Samyal and Ashok K Bagha, “Optimal location of piezoelectric patch on composite structure using viewing method”,
2017	International Conference on Advances in Materials, Manufacturing and Applied Sciences (ICAMMAS)-2017, held at Sri Sai Ram Institute of Technology, Sai Leo Nagar, West Tambaram, Chennai, India, 30-31 March 2017	• Rahul Samyal, Sukhjeet Singh and Ashok K Bagha, “Modal analysis of composite panel at different fiber orientations”,
2015	Proceedings of the 17th ISME conference on Advances in Mechanical Engineering, held at IIT Delhi, New Delhi, October 3-4, 2015	• Ashok K Bagha and S V Modak, “Active structural-acoustic control of interior noise using direct output feedback”,
2014	Proceedings of the 32nd International Modal Analysis Conference (IMAC-XXXII), A Conference and Exposition on Structural Dynamics, Orlando, Florida, USA, (3-6 February), 2014, 221-241	• Ashok K Bagha and S V Modak, “Virtual Sensing of Acoustic Potential Energy through a Kalman Filter for Active Control of Interior Sound”,
2014	Proceedings of INTER-NOISE 2014, 43rd International Congress on Noise Control Engineering, Melbourne, Australia, 16-19 November 2014	• Ashok K Bagha and S V Modak, “ A study on the influence of model uncertainties on the performance of a feedback control based ASAC system”,

Research Projects :

Role	Project Type	Title	Funding Agency	From	To	Amount	Status	Co-Investigator
PI	Internal Sponsored	Design and Fabricate a Composite Window to Mitigate the Urban Traffic Noise in dwellings	TEQIP-III, Dr B R Ambekdar National Institute of Technology Jalandhar	2018	2019	100000	In Progress	
Principal investigator	Technical	Piezoelectric actuators for position/shape control applications	ISRO	03-2020	03- 2022	2194943	In process	Dr. Kiran Singh, Dr. Sanjay, Mr. Sanjeev Kumar (ISRO Mentor)
Principal investigator	Technical	Design and development of D- Sub miniature space grade connectors for space applications	ISRO	March 2020	March 2022	2400000	In process	Dr. Satish Awasthi, Mr. Jiwan Kumar Pandit (from ISRO)

Events Organized :

Category	Type	Title	Venue	From	To	Designation
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FDP/STC	National	FEM and Modal Analysis in Engineering	Dr. B R Ambedkar National Institute of Technology Jalandhar	24-12-2019	28-12-2019	Organizer
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PhD Supervised :

Scholar Name	Research Topic	Status	Year	Co-Supervisor
Parminder Singh	Performance analysis of concentrating solar collector with nano fluid	In Progress	2019	Dr. Sanjay
Mr Rahul Samyal	Microwaves in material processing	In Progress	2018	Dr Raman Bedi

PG Dissertation Guided :

Student Name	Dissertation Title	Status	Year	Co-Supervisor
Mohit Kumar Saini	Experimental and analytical study to measure the acoustical and damping properties of natural fibers	In Progress	2020	Dr. Sanjay
Ankush Kesharwani	An experimental study to measure the acoustical properties of different materials	Completed	2019	Dr. Raman Bedi
Simran Pal Singh	Design and development of an experimental setup for trajectory control and force control of biomimetic fingers by a tendon based actuation system in processing	Completed	2019	Dr. Joseph Anand Vaz

Award and Honours :

Title	Activity	Given by	Year
Best Paper Award	International conference on Advanced Materials and Modern Manufacturing	ACET	2020
Best Research paper	International Conference on Aspects of Materials Science and Engineering	UIET, Chandigarh	2020
Best Paper Award	International Conference on Materials and Manufacturing Methods, NIT Trichy, 5th-7th July 2019	NIT Trichy	2019