# Dr.Yogesh Aggarwal

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#### **Educational qualifications**

| Exam Passed        | Univ./Board        | Year of passing | % Age obtained |
|--------------------|--------------------|-----------------|----------------|
| Ph.D.(Stuructures) | N.I.T.Kurukshetra  | 2012            |                |
| M.Tech(Structures) | R.E.C. Kurukshetra | 1996            | 78.54          |
| B.Tech (Civil)     | R.E.C. Kurukshetra | 1991            | 70.84          |
| 10+2               | C.B.S.E.           | 1986            | 76.50          |
| 10                 | Haryana Board      | 1984            | 80.33          |

**Topic of Ph.D:** Strength Characteristics and Durability Studies of Concrete Incorporating Industrial by-products

#### **Current areas of Interest**

- Use of Industrial By-Products in Normal and High-Performance Concrete.
- Sustainable Development of Concrete using Waste Material.
- Use of Nano Silica, Micro Silica and Silica fume in Concrete.
- Application of Data Mining Techniques to study various properties of concrete.
- Institute Industry Projects for development of Light Weight and Low-Cost Concrete.
- Micro Structure Analysis, XRD and XRF Analysis of Concrete.

#### No. of completed years in service at NIT, Kurukshetra: 28 years 0 months

- <u>Supervised M.Tech. Dissertations = 35</u>
- <u>Supervising M.Tech. Dissertations = 02</u>

#### Reviewer

- •Journal of Construction and Building Material, Elsevier Publications
- •British Journal of Applied Science & Technology.
- •Journal of Industrial & Engineering Chemistry.
- •Advances in Computational Design, An International Journal, Techno-Press Journal
- •Inorganic and Nano-Metal Chemistry Journal, Taylor & Francis, UK
- •Resources, Conservation & Recycling, Elsevier Publications
- •Cogent Engineering, Taylor & Francis, UK

#### **Expert Lectures delivered**

| Title   | Venue   | Date                        |
|---|---|-----------------------------|
| Innovative Sustainable  | One Week Workshop on Creative Thinking:   | 23.02.24                    |
| Materials   | Techniques tools and training, NIT Kurukshetra  | 27.02.24                    |
| Sustainable Development:<br>Technical, Environmental and<br>Social Feasibility  | One Week Workshop on Creative Exploration and<br>Empowerment, NIT Kurukshetra   | 13.09.23-<br>19.09.23       |
| Sustainable Construction<br>Materials   | One Week Workshop on Waste Management: A<br>Key to Sustainable Earth) NIT Kurukshetra   | January 11-15,<br>2023      |
| Contemporary Advances in<br>Sustainable and Integrated<br>Infrastructure        | Manav Rachna International Institute of Research and Studies, Faridabad   | 02.08.21 to<br>06.08.21     |
| Design of Structures using<br>Staad Pro   | CED, NIT, KKR<br>Advances in Structural Engineering2019   | 09-14,<br>December,<br>2019 |
| Earthquake effects on RCC<br>Structures   | Expert Lecture in Strengthening<br>Capacities for Hazardous and Disaster<br>Risk Management (SCHDRM-2018)<br>NIT, Kurukshetra | 06 May, 2018                |
| High Strength Concrete  | CED, NIT, KKR<br>Advances in Structural Engineering2017   | 21.01.17                    |
| Analysis and Design of<br>Structures using Staad Pro                            | DCRUST, MURTHAL   | 10.03.2015                  |
| Sustainable Development:<br>Technical, Environmental and<br>Social Feasibility. | NIT, Kurukshetra  | 13.09.23 to<br>19.09.23     |
| Innovative Sustainable Materials  | NIT, Kurukshetra  | 23.02.24 to<br>27.02.24     |

#### **STC Organized**

| Title  | Venue            | Date                |
|--|------------------|---------------------|
| One Week Workshop on Creative Thinking:                          | NIT Kurukshotro  | 23.02.24            |
| Techniques tools and training,                                   | INTT KUTUKSHEITÄ | 27.02.24            |
| One Week Workshop on Virasat 2024                                | NIT Kurukshatra  | 15.01.24-           |
| One week workshop on virasat-2024                                | INIT KUTUKSHCITA | 21.01.24            |
| One Week Workshop on Creative Exploration and                    | NIT Kurukshatra  | 13.09.23 to         |
| Empowerment (CEE 2023)   | INIT KUTUKSHEITA | 19.09.23            |
| 5-day Workshop on Professional Skill Proficiency (PSP            | NIT Kurukshotro  | 04.05.23 to         |
| 2023)  | INIT KUTUKSHEITA | 08.05.23            |
| 5-day Workshop on Professional Skill Development                 | NIT Vumikahatra  | 08.02.23 to         |
| (PSD 2023)   | INTT KUTUKSHEITÄ | 12.02.23            |
| Stress Management Through Music and Mediation                    | Yogdhara         | 01.02.23            |
|  | NII,Kuruksnetra  | 10.00.00            |
| One Week Workshop on EBSB (Ek Bharat Shreshtha                   | NIT Kurukshetra  | 10.09.22 to         |
| Bharat Scheme  |                  | 15.09.22            |
| Strengthening Capacities for Hazardous and Disaster              | NIT,             | 01-06 May,          |
| Risk Management (SCHDRM-2018)                                    | Kurukshetra      | 2018                |
| New Developments in Prefab Structures and Concrete<br>Technology | NIT Kurukshetra  | 13 November<br>2018 |

#### **Conference Organized**

| Title  | Venue       | Date         |
|--|-------------|--------------|
| National Conference on Metacognition, Creativity & | NIT         | 16-17 March, |
| Divergent Thinking (NC-MCDT-2024)                  | Kurukshetra | 2024         |

#### Session Chair in Conference

| Title   | Venue  | Date              |
|---|--|-------------------|
| National Conference on Metacognition, Creativity &<br>Divergent Thinking (NC-MCDT-2024) | NIT Kurukshetra<br>Session 5 3.00 pm to<br>4.30 pm | 16 March,<br>2024 |

## **List of Publications in Journals**

#### 1. International Journals

- 1. Yeluri, S.C., Singh, K., Kumar, A., Aggarwal, Y., Sihag, P., Estimation of Compressive Strength of Rubberised Slag Based Geopolymer Concrete Using Various Machine Learning Techniques Based Models, Iranian Journal of Science and Technology -Transactions of Civil Engineering, 2024
- 2. Singh Yadav, S., Gupta, A., Gowda, S., Aggarwal, Y., Development of Maintenance Priority Index for Urban Road Network, Lecture Notes in Civil Engineering, 434, pp. 3-18, 2024
- 3. Singh Yadav, Saurabh, Gupta, Aakash, Gowda, Sachin and Aggarwal, Yogesh, Development of Maintenance Priority Index for Urban Road Network, Lecture Notes in Civil EngineeringVolume 434, Pages 3 - 182024 14th Conference on Transportation Planning and Implementation Methodologies for Developing Countries, TPMDC 2022Mumbai19 December 2022through 21 December 2022Code 305829.
- 4. A. Gupta, Y. Aggarwal, P. Aggarwal, Deep neural network and ANN ensemble for slope stability prediction, International Scientific Journal published monthly by the World Academy of Materials and Manufacturing Engineering, Volume 116, Issue 1, July 2022, Pages 14-27
- Aman Garg, Paratibha Aggarwal, Yogesh Aggarwal, M.O.Belarbi, H.D.Chalak, Abdelouahed Tounsi & Reeta Gulia, Machine Learning Models for predicting the Compressive Strength of Concrete Containing Nano Silica, Computers and Concrete, Vol. 30, No. 1 July (2022) 33-42 https://doi.org/10.12989/cac.2022.30.1.033
- 6. Yogesh Aggarwal, Paratibha Aggarwal, Parveen Sihag & Ankit Kumar, Evaluation and Estimation of Compressive Strength of Concrete using hybrid Modeling Techniques, Iranian Journal of Science and Technology, Transactions of Civil Engineering, Springer, Vol.46, (2022), 3131-3145. https://doi.org/10.1007/s40996-021-00812-7
- 7. Parveen Sihag, Paratibha Aggarwal, Yogesh Aggarwal & Vinod Kumar, Discussion of "Evaluating the Performance of Self Organizing Maps to Estimate Well Watered Canopy Temperature for Calculating Crop Water Stress Index in Indian Mustard (Brassica Junceao: by Navsal Kumar, Vijay Shankar, Rabee Rustum & Adebayo J. Adeloye, Journal of Irrigation & Drainage Engineering, ASCE, Vol. 148(8) 1<sup>st</sup> August 2022, 1-3 https://doi.org/10.1061/(ASCE)IR.1943-4774.0001526

- 8. A Parashar, P Aggarwal, B Saini, **Y Aggarwal**, S Bishnoi, Study on performance enhancement of self-compacting concrete incorporating waste foundry sand, Construction and Building Materials, Elsevier Publications, 10.08.20, 251, 118875
- 9. Rishav Garg, Rajni Garg, Manjeet Bansal & **Yogesh Aggarwal**, Experimental study on strength and microstructure of mortar in presence of micro and nano-silica, Materials Today Proceedings 01.07.2020, Elsevier Publications, Vol. 43 (2021) 769-777.
- Y Aggarwal, P Aggarwal, P Sihag, M Pal, A Kumar, Estimation of Punching Shear Capacity of Concrete Slabs Using Data Mining Techniques, International Journal of Engineering, Iran, Materials and Energy Research Center Publisher, Volume 32, Issue 7, pages 908-914. 01.07.19
- 11. Keenu Nayyar, Manjeet Bansal, Yogesh Aggarwal, Experimental Study in Various Properties of High Strength Self-Compacting Concrete Incorporating NanoSilica International Journal of Interdisciplinary Research and Innovations, Vol. 6, Issue 2, pp: (209-216), Month: April - June 2018
- 12. Keenu Nayyar, Manjeet Bansal, Yogesh Aggarwal, Experimental Approach in Various Possessions of High Performance Self-Compacting Concrete Incorporating NanoSilica, International Journal of Interdisciplinary Research and Innovations Vol. 6, Issue 2, pp: (229-233), Month: April - June 2018
- Rishav Garg, Manjeet Bansal & Yogesh Aggarwal, Split Tensile Strength of Cement Mortar Incorporating Micro and Nano Silica at Early Ages, International Journal of Engineering Research & Technology (IJERT), Vol. 05, Issue 04, April-2016 pp 16-19 ISSN 2278-0181.
- 14. Rishav Garg, Manjeet Bansal & **Yogesh Aggarwal**, Strength Chloride Penetration and Microstructure Study of Cement Mortar Incorporating Micro and Nano Silica, International Journal of Electrochemical Science, 11(2016) April -2016, pp 3697-3713.
- Paratibha Aggarwal, Rahul Pratap Singh and Yogesh Aggarwal, Use of nano-silica in cement-based materials—A review, Cogent Engineering, OA, Taylor and Francis, (2015), 2(1): 1078018 <u>http://dx.doi.org/10.1080/23311916.2015.1078018</u>, pp 1-11.
- 16. Paratibha Aggarwal, Rahul Pratap Singh and **Yogesh Aggarwal**, Effect of Nano-silica on Properties of Concrete, Concrete Plant International (CPI) April, 2015, 2, pp. 46-49.
- 17. Yogesh Aggarwal, Rafat Siddique, Micro structure and properties of concrete using bottom ash and waste foundry sand as partial replacement of fine aggregates, Construction and Building Materials, *Elsevier Publications*, 54, 2014, Pp 210-223. (Impact Factor 3.169) ISSN: 0950-0618 SCI JOURNAL\*<sup>a</sup>
- 18. Paratibha Aggarwal, Yogesh Aggarwal, Rafat Siddique, Sakshi Gupta, Harshit Garg, Fuzzy Logic Modelling of Compressive Strength of High Strength Concrete (HSC) with Supplementary Cementitious Journal of Sustainable Cement-Based Materials, Taylor & Francis, Vol.2 No. 2, June 2013, 128-143 <u>http://www.tandfonline.com/doi/full/10.1080/21650373.2013.801800</u> ISSN: 2165-0373 (Print), 2165-0381 (Online)
- 19. Rafat Siddique, Paratibha Aggarwal, **Yogesh Aggarwal**, Mechanical and durability properties of self-compacting concrete containing fly ash and bottom ash, Journal of Sustainable Cement-Based Materials, Taylor & Francis, Vol.1 No. 3, September 2012, 67-82. **ISSN: 2165-0373** (Print), 2165-0381 (Online)
- 20. Rafat Siddique, Paratibha Aggarwal, Yogesh Aggarwal, Influence of water/powder ratio on strength properties of self-compacting concrete containing coal fly ash and bottom ash, Construction and Building Materials, *Elsevier Publications*, 29, 2012,

Pages 73-81, (Impact Factor 3.169) ISSN: 0950-0618 doi: 10.1016/j.conbuildmat.2011.10.035. SCI JOURNAL\*<sup>a</sup>

- 21. Rafat Siddique, **Yogesh Aggarwal**, Paratibha Aggarwal, El-Hadj Kadri, Rachid Bennacer, Strength, durability, and micro-structural properties of concrete made with used-foundry sand (UFS), Construction and Building Materials, *Elsevier Publications*, 25, 2011, Pages 1916-1925, (**Impact Factor 3.169**) **ISSN:0950-0618** doi:10.1016/j. conbuildmat.2010.11.065. SCI JOURNAL\*<sup>a</sup>
- Rafat Siddique, Paratibha Aggarwal, Yogesh Aggarwal, Prediction of Compressive Strength of Self-Compacting Concrete containing bottom ash using artificial neural network, Advances in Engineering Software, Elsevier Publications, Volume 42, Issue 10, October 2011, Pages 780-786, (Impact Factor 3.0) ISSN: 0965-9978 doi: 10.1016/j.advengsoft.2011.05.016. SCI JOURNAL\*<sup>b</sup>
- 23. Yogesh Aggarwal, Prediction of Compressive Strength of Self-Compacting Concrete containing bottom ash using artificial neural network, World Academy of Science, Engineering and Technology, Vol-77, 2011, pp 735-740
- 24. Yogesh Aggarwal, Rafat Siddique, Paratibha Aggarwal and S.M.Gupta A frame work for use of industrial by-products in concrete, CPI-Concrete Plant International, Vol., 6, Dec., 2009 pp 20-22. ISSN No. 1437-9023
- 25. Rafat Siddique, Paratibha Aggarwal, Yogesh Aggarwal and S.M.Gupta, Modeling Properties of Self-Compacting Concrete: Support Vector Machines Approach, Computers and Concrete, Techno Press, Vol-5, No.-5, 2008, pp 461-473 ISSN: 15988198, 1598818X, H Index: 9. SCI JOURNAL\*<sup>c</sup> (Impact Factor by 0.813)
- 26. Paratibha Aggarwal, Rafat Siddique, **Yogesh Aggarwal** and S.M.Gupta, Self-Compacting Concrete- Procedure for Mix Design, Leonardo Electronic Journal of Practices and Technologies, Issue 12 (<u>http://lejpt.academicdirect.org/A<sub>12</sub></u>) Jan-June, 2008, pp.15-24. **ISSN: 15831078**, H Index: 4
- 27. Yogesh Aggarwal, Modeling of Reinforcement in Concrete Beams Using Machine Learning Tools, Journal of World Academy of Science Engineering and Technology, Vol 32, 28.08. 2007. pp. 130-131
- 28. Rafat Siddique, Paratibha Aggarwal, **Yogesh Aggarwal** and S.M.Gupta, Modelling of the Properties of Self-Compacting Concrete, *CPI-Concrete Plant International*, Vol 6, 2007, pp. 53-59. **ISSN: 1437-9023**
- 29. Paratibha Aggarwal, Yogesh Aggarwal and S.M.Gupta, Effect of Bottom Ash as Replacement of Fine aggregates in Concrete, Asian Journal of Civil Engineering, Iran, Vol-8 No.-1, 2007 pp.39-52. ISSN: 1563-0854 H Index 4.
- S.M. Gupta, Paratibha Aggarwal and Yogesh Aggarwal, Shrinkage of High Strength Concrete, Asian Journal of Civil Engineering, Iran, Vol-7, No.-2 April, 2006 pp.183-194.
   ISSN: 1563-0854. H Index 4.

#### 2. National Journals

- Yogesh Aggarwal, Paratibha Aggarwal, Vaibhav Sharma, Comparative Study of Concrete Mix Design using IS and ACI methods with and without Super-plasticizer, New Building Materials and Construction World, Vol-24, Issue No.1., July 2018, pp.186-198. ISSN: 0973-0591
- 2. Ranbir S. Khatana, Paratibha Aggarwal and **Yogesh Aggarwal** Utilization of super pozzolanic material in the production of self-compacting concrete, ICJ The Indian

Concrete Journal. Vol. 98(2) Feb. 2019, 52-60 Email: <u>icj@acclimited.com</u> <u>info@icjonline.com</u> Web <u>www.icjonline.com</u>

- 3. Aman Sharma, Yogesh Aggarwal, "Experimental Studies of properties of Concrete Using Bagasse Ash" Journal of engineering & Technology Education (ISSN 2229-631X) UGC approved journal (S.No. 6094; Journal No. 45339), Vol 11, No. 2 (July-December 2017).
- 4. Yogesh Aggarwal and S. Naveen Chander. Properties of Expanded Polystyrene Concrete Containing Ground Granulated Blast Furnace Slag, New Building Materials and Construction World, Vol-20, Issue No.5, November 2014, pp.174-182. ISSN: 0973-0591
- 5. Paratibha Aggarwal, **Yogesh Aggarwal**, Kapil Grover and Sabzar A. Bhat, Prediction of slump and Compressive Strength of Concrete Containing Foundry Sand. *Research in Civil and Environmental Engineering*, Vol 1, 2013 pp149-168. **ISSN: 2345-3109.**
- 6. S.M.Gupta, Paratibha Aggarwal and **Yogesh Aggarwal**, Bottom Ash as Eco-friendly material for concrete, *Journal of Pradushan Nirmulan*, *India*, Vol-3 No.-4 April, 2006 pp.13-17. **ISSN: 0972-8902**

#### 1. International Conferences

- 1. Isha Saini, Yogesh Aggarwal, Paratibha Aggarwal, Comparative study of RCC buildings on sloping ground with and without infill walls, National conference on Planning and architecture for hill region (PAHR) 2024 organized by NIT Hamirpur and Indian Institute of Architects, 15-16 May 2024
- 2. Isha Saini, Yogesh Aggarwal, Paratibha Aggarwal, Optimizing Sustainability In Building Design through Infill Walls
- 3. International conference on Sustainable Research in Energy and Environment (SREE)-2024 NIT Jalandhar, 5-6 April 2024
- 4. Sant Kumar, Yogesh Aggarwal, Paratibha Aggarwal, Utilization of Waste polythene in Self-compacting concrete, International Conference on Sustainable Materials, Environment and Technologies Under Climate Change Scenario (SMET-2024) (Hybrid Mode), National Institute of Technology Kurukshetra, 25th - 27th July, 2024
- 5. Vineet Kumar, Yogesh Aggarwal, Paratibha Aggarwal, Exploring Marble dust as a Sustainable Alternative: A comprehensive study of properties, Performance and Environmental impact, international conference on Sustainable Research in Energy and Environment (SREE)-2024 NIT Jalandhar, 5-6 April 2024
- 6. Vineet Kumar, Yogesh Aggarwal, Paratibha Aggarwal, Optimisation of Marble dust concrete using Design of experiment technique, International Conference on Sustainable Materials, Environment and Technologies Under Climate Change Scenario (SMET-2024) (Hybrid Mode), National Institute of Technology Kurukshetra, 25th - 27th July, 2024
- 7. Alok Gusain, Paratibha Aggarwal, Yogesh Aggarwal, Analysis of Multistorey Building with and without shear wall with Sustainable design, National conference on Planning and architecture for hill region (PAHR) 2024 organized by NIT Hamirpur and Indian Institute of Architects, 15-16 May 2024
- 8. Alok Gusain, Paratibha Aggarwal, Yogesh Aggarwal, Performance Evaluation of Multistorey Buildings with and without Shear Walls Under Earthquake Loading, International Conference on Sustainable Materials, Environment and Technologies

Under Climate Change Scenario (SMET-2024) (Hybrid Mode), National Institute of Technology Kurukshetra, 25th - 27th July, 2024

- 9. Shivam Kumar, Yogesh Aggarwal, G. Bharath. (2023). "Study on the use of natural resin as a bitumen modifier" International Conference on Recent Trends in Engineering and Science (RTES-2023), National Institute of Technology Surat, India. [Presented on 2 nd -3 rd May, 2023.
- Kumari, A., Dey, N., & Aggarwal, Y. (2023). Behavior of braced excavation under rainfall infiltration. International Conference on Recent Trends in Engineering and Science (RTES-2023), National Institute of Technology Surat, India. [Presented on 2 nd -3 rd May,2023.
- 11. Sachin Jairam Dhobi & Yogesh Aggarwal, "Study of Settlement of tall building due to Consolidation of Soil during Earthquake", International Conference on 'Recent Trends in Engineering and Science' (RTES-2023), SVNIT SURAT. 02-03 May 2023.
- 12. Sachin Jairam Dhobi & Yogesh Aggarwal, "Study of Settlement characteristics of Building Foundation for different types of soil during Earthquakes" in 3 rd International Conference on Innovative Research in Science, Technology, Agriculture, Environment, Business management and Humanities (STAEBM-2023) on 12-13 May 2023 in NIT Srinagar, Jammu and Kashmir, India.
- 13. Prabhat Garg & **Yogesh Aggarwal**, "Comparative Study on Seismic Analysis of Reinforced Concrete Frame Building with Masonary Infill walls" in 3 rd International Conference on Innovative Research in Science, Technology, Agriculture, Environment, Business management and Humanities (STAEBM-2023) on 12-13 May2023 in NIT Srinagar, Jammu and Kashmir, India.
- 14. Saurabh Singh Yadav, Aakash Gupta & Dr.Yogesh Aggarwal (2022) A Comparative Study on overall priority indices for flexible pavement network. International Virtual Conference on (SSJUGI) IN India & Canada. March, 25-26, 2022, NIT, Trichy.
- 15. Sukh Sagar Shukla & Dr.Yogesh Aggarwal (2022) Modelling of RCC Framed Structure on Sloping Ground using ANN and Random Tree Technique. International Conference on Innovations in Applied Science & Engineering (ICIASE 2022). May, 18-19, 2022, Dr.B.R.Ambedkar NIT, Jalandhar.
- 16. Kaushal Tanwar & Dr.Yogesh Aggarwal (2022) The Efficacy of Sodium Hydroxide & Lime as Soil Stabilizing Agent. International Conference on Innovations in Applied Science & Engineering (ICIASE 2022). May, 18-19, 2022, Dr.B.R.Ambedkar NIT, Jalandhar.
- 17. Pranjal Kumar Pandey and Yogesh Aggarwal, "ANN and M5P approaches with statistical evaluations to predict compressive strength of SCC containing silica's" International Conference on Paradigms of Communication, Computing and Data Sciences (PCCSS-2021)", NIT Kurukshetra, 07-09 May 2021.
- 18. Manik Kalia, Yogesh Aggarwal, Effect of Irregularities on Progressive Collapse Potential of Structures: A Review, International Conference on Recent Advances in Engineering & Science (ICRAES-2020), University Polytechnic, Aligarh Muslim University, Aligarh, Affilatd by Vigyan Prasar, DST Govt. of India from 11-12 January 2020, pp 24 ISBN 978-81-944663-1-4.
- 19. Harpreet Singh, **Yogesh Aggarwal**, Seismic Effects on Structures having Couled Shear Wall: A Review of Studies, International Conference on Recent Advances in Engineering & Science (ICRAES-2020), University Polytechnic, Aligarh Muslim

University, Aligarh, Affilatd by Vigyan Prasar, DST Govt. of India from 11-12 January 2020, pp 31 ISBN 978-81-944663-1-4.

- 20. Gaurav Ganotra, **Yogesh Aggarwal** and Paratibha Aggarwal, Study of Seismic Parameters in L-Shaped unsymmetrical building for locating the ideal position of shear wall, International conference on recent trends and challenges in Civil Engineering (RTCCE-2014), MNIT, Allahabad, 12-14, December 2014, ISBN: 978-93-80635-16-3, pp 112-116 (51).
- 21. Ranbir S. Khatana, Paratibha Aggarwal and **Yogesh Aggarwal**, Self-Compacting Concrete using Supplementary Cementitious Materials: A review, International conference on recent trends and challenges in Civil Engineering (RTCCE-2014), MNIT, Allahabad, 12-14, December 2014, ISBN: 978-93-80635-16-3, pp 123-127 (53).
- 22. Paratibha Aggarwal, Yogesh Aggarwal, Harshit Garg, Deepak Leelwan, Strength optimization of cement blended by flyash and alcco fine, ICSCI 2014 © ASCE India Section, Oct 17 18, 2014, Hitex, Hyderabad, Telangana, India, pp 39-48
- 23. Yogesh Aggarwal, Prediction of Compressive Strength of SCC containing Bottom ash using Artificial Neural Networks, World Academy of Science Engineering and Technology (WASET) Paris, France, 24-26, 2011 June, Paris France, pp. 101-106. ISSN: 2010-376X
- Paratibha Aggarwal, Rafat Siddique, Yogesh Aggarwal and Jamal Khatib, Influence of W/P ratio on strengths of SCC made with coal bottom ash, 6<sup>th</sup> International RILEM Symposium SCC 2010, 26-29, September 2010, Montreal, Canada, pp. 181-192. ISBN. 9789048196647 9048196647 (Springer Publications)
- 25. Yogesh Aggarwal, Rafat Siddique, S.M.Gupta and Paratibha Aggarwal, Use of Foundry sand & Bottom ash in Concrete, The 25th International Conference on Solid Waste Technology and Management, Philadelphia, PA, U.S.A. March 14 - 17, 2010, ISSN No. 0378-4274.
- 26. **Yogesh Aggarwal**, Rafat Siddique, S.M.Gupta and Paratibha Aggarwal, Effect of Foundry Sand as Partial Replacement of Fine Aggregates on Concrete Properties, The 25th International Conference on Solid Waste Technology and Management, Philadelphia, PA, U.S.A. March 14 - 17, 2010, **ISSN No. 0378-4274.**
- 27. Rafat Siddique, Paratibha Aggarwal, Jamal Khatib and **Yogesh Aggarwal**, Strength Properties and Chloride Permeability of Self-Compacting Concrete, 2<sup>nd</sup> International Symposium on Design, Performance and Use of Self-Consolidation Concrete, Beijing, China, 5-8 June 2009, pp 381-390. **(RILEM PRO 65) ISBN/ISSN: 978-2-35158-073-8**
- 28. Rafat Siddique, Paratibha Aggarwal and Yogesh Aggarwal, Compressive Strength modeling of SCC using Linear Regression and Artificial Neural Network Approach, 2<sup>nd</sup> International Symposium on Design, Performance and Use of Self-Consolidation Concrete, Beijing, China, 5-8 June 2009, pp. 391-398. (RILEM PRO 65) ISBN/ISSN: 978-2-35158-073-8
- 29. S.M.Gupta, Paratibha Aggarwal, **Yogesh Aggarwal**, V.K.Sehgal, Rafat Siddique & S.K.Kaushik, Permeability of High Strength Concrete, International Conference on Excellence in Concrete Construction- through Innovation, Kingston Hill Campus, London, UK, 9-10 September 2008, pp. 159-163. **ISBN 978-0-415-47592-1**
- 30. Yogesh Agarwal and R. Siddique, Use of Waste Foundry Sand in Concrete, International Conference on Excellence in Concrete Construction- through Innovation, Kingston Hill Campus, London, UK, 9-10 September 2008, Poster Presentation. ISBN 978-0-415-47592-1

- 31. Yogesh Aggarwal, Modeling of Reinforcement in Concrete Beams Using Machine Learning Tools, World Academy of Science Engineering and Technology (WASET) Bangkok, Thailand, 14-17 December, 2007. pp. 253-257. ISSN 1307-6884.
- 32. Paratibha Aggarwal, Rafat Siddique, Yogesh Aggarwal and S.M.Gupta, Modeling the Properties of Self-Compacting Concrete: An M5 Model Tree Based Approach, 5th International RILEM symposium SCC 2007 Ghent, Belgium, 3-5 September 2007, pp. 49-54. ISBN. 9782351580509 2351580508 9782351580516 2351580516 9782351580554 2351580559
- Rafat Siddique, Paratibha Aggarwal, Yogesh Aggarwal and S.M.Gupta, Development, Investigation and Applications of Self-compacting concrete, 5th International RILEM symposium SCC 2007 Ghent, Belgium, 3-5 September 2007, pp. 55-59. ISBN. 9782351580509 2351580508 9782351580516 2351580516 9782351580554 2351580559.
- 34. S.M.Gupta, Paratibha Aggarwal and **Yogesh Aggarwal**, Effect of Replacement of Aggregates by Demolition Wastes on Concrete Properties, 22nd International Conference on Solid Waste Technology and Management, Philadelphia, USA, 18/19/20/21 March 2007, pp. 479-486.
- 35. Yogesh Aggarwal, Paratibha Aggarwal and Rafat Siddique, Mechanical Properties of Concrete containing Coal Bottom Ash as Replacement of Fine Aggregates in Concrete, 22nd International Conference on Solid Waste Technology and Management, Philadelphia, USA, 18/19/20/21 March 2007, pp. 903-916.
- 36. Paratibha Aggarwal, Yogesh Aggarwal, S.M.Gupta and Rafat Siddique, Properties of Self Compacting Concrete- An Overview, International Conference 'Our world in Concrete and Structures', OWICS 05, Singapore, 23/24 Aug. 2005 pp. 119-126. ISBN. 981-05-3546-5.

#### National Conferences

- 1. Shivam Kumar, **Yogesh Aggarwal**, G. Bharath. (2023). "Study on the Rheological and Chemical properties Of Resin modifier Binder" National Conference on 'Sustainable Development of Smart Cities Infrastructure' (SDSCI-2023), NIT KURUKSHETRA. 27-28 May 2023.
- Kumari, A., Dey, N., & Aggarwal, Y. (2023). A parametric study on braced excavation under rainfall infiltration. National Conference on "Sustainable Development of Smart Cities Infrastructure (SDSCI-2023), National Institute of Technology, Kurukshetra, India. [Presented on 27th– 28th May 2023]
- 3. Sachin Jairam Dhobi & Yogesh Aggarwal, "Study of tall building Settlement due to soil consolidation during Earthquake", 'National Conference on 'Sustainable Development of Smart Cities Infrastructure' (SDSCI-2023), NIT KURUKSHETRA. 27-28 May 2023.
- 4. Prabhat Garg & **Yogesh Aggarwal**, Study on Comparative ON COMPERATIVE SEISMIC ANALYSIS OF REINFORCED CONCRETE FRAME BUILDING WITH MASONRY INFILL WALLS" in National Conference on Sustainable Development of Smart Cities Infrastructure (SDSCI-2023) during May 27-28 th, 2023 in NIT Kurukshetra, Haryana,India.
- Saurabh Singh Yadav & Dr.Yogesh Aggarwal (2022) Development of Maintenance Index. 10<sup>th</sup> National Conference on nano Science & Instrumentation Technology (NCNIT 2022). July 9-10, 2022, Department of Physics NIT, Kurukshetra.

- 6. Sukh Sagar Shukla & Dr.Yogesh Aggarwal (2022) Modelling of RCC Framed Structure on Sloping Ground using ANN and Random Tree Technique. 10<sup>th</sup> National Conference on nano Science & Instrumentation Technology (NCNIT 2022). July 9-10, 2022, Department of Physics NIT, Kurukshetra.
- Kaushal Tanwar & Dr.Yogesh Aggarwal (2022) Stabilization of Clayey Soil using various chemicals. 10<sup>th</sup> National Conference on nano Science & Instrumentation Technology (NCNIT 2022). July 9-10, 2022, Department of Physics NIT, Kurukshetra.
- 8. Aditya Sood and **Dr. Yogesh Aggarwal** (2018), "Dynamic-based analysis for an asymmetric building under seismic action A Review", National Conference on Latest Innovations in the area of sustainable Materials for building/Road construction in civil engineering (NCSMBRCE-2018) September 22-23, 2018 Civil Engineering Department, Malaviya National Institute of Technology Jaipur.
- 9. Aditya Sood and **Dr. Yogesh Aggarwal** (2019), "Comparative study on asymmetrical LShaped RCC building by Pushover Analysis", National Conference on Advances in Building Road Materials and Construction Engineering (ABRMCE-2019) March 25th & 26th, 2019 Civil Engineering Department, Malaviya National Institute of Technology Jaipur.
- 10. Vikrant Rana and Dr. Yogesh Aggarwal (2018), "Pushover Analysis of Multistorey Building", Latest Innovations in the werea of Sustainable Materials for Building/Road Construction in Civil Engineering (NCSMBRCE-2018), SEP. 22-23,2018 Civil Engineering Department, Malaviya National Institute of Technology Jaipur.
- Vikrant Rana and Dr. Yogesh Aggarwal (2019), "Comparative Study of Parameters of a Symmetrical Multistorey Buildings using Non-linear Static Analysis", National Conference on Advancement in Building-Road Materials & Construction Engineering (ABRMCE-2019) March 25-26, 2019 Civil Engineering Department, Malaviya National Institute of Technology Jaipur.
- 12. Ankur Kaushik, Yogesh Aggarwal,"Non-Linear Static (Push Over) Analysis of Buildings: A review", National Conference on Emerging Trends & Developments in Civil Engineering (NCETDCE-2017) M.N.I.T., Jaipur, pp. 1-6 nov 11-12, 2017
- 13. Ankur Kaushik, **Yogesh Aggarwal**, "Non-Linear Static (Push Over) Analysis of Buildings of Different Seismic Zones", National Conference on Emerging Trends & Developments in Civil Engineering (NCETDCE-2017) M.N.I.T., pp 7-16, Jaipur, nov 11-12, 2017.
- 14. Deepak Goyal, **Yogesh Aggarwal**, "Effect of using recycled concrete aggregates on porous concrete", National Conference on Advances in Materials and Product Design (AMPD-2017), S.V.N.I.T. Surat, pp. 50-55, 10 March, 2017-11<sup>th</sup> March 2017
- 15. Deepak Goyal, **Yogesh Aggarwal**, "Comparative study of mechanical properties of porous concrete by using normal aggregates and recycled concrete aggregates", New Generation Concrete (NGC), NITTTR, Journal of Engineering and Technology Education Vol 11, No.2 July to December Chandigarh, 2017. pp 25-28
- 16. Aman Sharma, Yogesh Aggarwal, "Study of Sugar Cane Bagasse Ash as A Pozzolanic Material: A Review" at National Conference on Advances in Materials and Product Design, NIT Surat, pp 150-157, 10 March, 2017- 11<sup>th</sup> March 2017
- 17. Aman Sharma, **Yogesh Aggarwal**, "Experimental Studies of properties of Concrete Using Bagasse Ash" national Conference on New Generaton Concrete organized by Civil Engineering Department at NITTTR, Chandigarh on 19<sup>th</sup> April 2017
- 18. Nitin Goel & Yogesh Aggarwal, Effect of Micro Silica on Performance of Self Compacting Concrete, 1<sup>st</sup> National Conference on recent advances in civil engineering

(RACE-2016) Department of Civil Engineering and Applied Mechanics, Sardar Vallabhbhai National Institute of Technology, Surat March 5-6, 2016

- 19. Nitin Goel & **Yogesh Aggarwal**, Effect of nano silica and micro silica on properties of Self-compacting concrete. 4<sup>th</sup> National Conference on nano science and Instrumentation technology (NCNIT-2016), National Institute of Technology, Kurukshetra. June 4-5, 2016.
- **20.**Keenu Nayyar, Gautam, Dr.ManjeetBansal, Er.Baljeet Singh, **Dr.YogeshAggarwal**, Seismic Analysis of a Reinforced Concrete Building by Response Spectrum Method at different zones, TEQIP-II Sponsored, National Conference on Latest Developments in Civil and Environment Engineering , 15th -16th Oct., 2015, Department of Civil Engineering, Giani Zail Singh Punjab Technical University Campus, Bathinda
- 21. M.Ravi Kumar, **Yogesh Aggarwal**, Paratibha Aggarwal, Experimental Study of Chloride Resistance of Concrete Incorporating Blend Cement, National Conference on Sustainable Infrastructure Development-2015, (NCSID-2015) M, National Institute of Technical Teachers Training & Research Institute, Chandigarh, 26-27 February, 2015, pp.691-699.
- 22.Ranbir S Khatana, Paratibha Aggarwal, **Yogesh Aggarwal**, Effect of Alccofine on Fresh and Hardened Properties of Self Compacting concrete, National Conference on Technological Innovations for Sustainable Infrastructure, TISI-2015, NIT Calicut, 13-14 March, 2015, pp.34-38
- 23.Gaurav Ganotra, **Yogesh Aggarwal**, Paratibha Aggarwal, Comparison of effect of Shear Wall Location with Storey Height in the performance of Multi-Storeyed Lshaped Building, National Conference on Technological Innovations for Sustainable Infrastructure, TISI-2015, NIT Calicut, 13-14 March, 2015, pp.353-357
- 24. M.Ravi Kumar, **Yogesh Aggarwal**, Paratibha Aggarwal, Study of Chloride resistance of concrete containing Blended cement: A Review, National Conference on Technological Innovations for Sustainable Infrastructure, TISI-2015, NIT Calicut, 13-14 March, 2015, pp.284-288.
- 25.Rahul Pratap Singh, Paratibha Aggarwal and **Yogesh Aggarwal**, A review of mechanical properties of cementatious compositions incorporating nano materials (Nano Silica), National Conference on Nano material and Instrumentation (NCNI-2014) N.I.T.Kurukshetra, March 9-10, 2014,
- 26.Kumar Roshan and **Yogesh Aggarwal,** Influence of Bauxite Tailings and Super Plasticizer in Cement Mortar. Proc. of the National Conference on Recent Trends in Chemical Science Engineering and Technology (RTCET-2014), NIT, Hamirpur, May, 29-30, 2014, pp. 53.
- 27.Kumar Roshan and **Yogesh Aggarwal,** Use of waste derived from Bayer process (for Alumina production) as a Partial replacement of Cement, Proc. of First Annual Conference on Innovations and Developments in Civil Engineering, NITK, Surathkal May 19-20, 2014, pp. 27-33.
- 28.S.Naveen Chander and **Yogesh Aggarwal,** Light weight expanded Polystyrene concrete containing ground granulated Blast Furnace Slag. Proc. of the National Conference on Innovations in Design and construction of Industrial Structures at NIT, Durgapur. April 3-5, 2014, pp. 104-109.
- 29.Kumar Roshan and **Yogesh Aggarwal,** Effect of Cement Replacement with Bauxite residue on the mechanical properties of concrete. Proc. of the National Conference on

Innovations in Design and construction of Industrial Structures at NIT, Durgapur. April 3-5, 2014, pp. 27-30.

- 30.Paratibha Aggarwal, **Yogesh Aggarwal** and Surekaha Aggarwal, M5 Modeling Approach: Prediction of Strength of Concrete with Industrial By-products, Proc. All India Seminar on Emerging Technology in Civil Engineering, Institution of Engineers, Haryana Centre, August 24-25, 2012, pp. 27-33.
- 31. Paratibha Aggarwal, **Yogesh Aggarwal** and S.M.Gupta, Self-Compacting Concrete Containing Class-F fly ash for hydraulic structures, National Conference on Hydraulics, Water Recourses, Costal and Environmental Engineering. HYDRO 2010 at MMEC, Mullana. December 16-18, 2010. pp 619-625.
- 32.**Yogesh Aggarwal**, Paratibha Aggarwal, Mahesh Pal and V.K.Sehgal, Prediction of Reinforcement by Machine Learning Tools, 2nd National Conference on Advances in Concrete Technology, T.I.E.T., Patiala, 26/27 Feb. 2004, pp. 197-204.
- 33.Paratibha Aggarwal, **Yogesh Aggarwal** and Karuna Mittal, Applications of Support Vector Machines to the Design of Reinforced Concrete Beams, *National Conference on Intelligent Systems and Networks, H.E.C., Jagadhri*, 27/28 Feb. 2004, pp. 14-18.

#### **REFRESHER COURSES/SUMMER SCHOOLS ATTENDED**

| Sr. | Course   | Place                       | Duration                  |
|-----|--|-----------------------------|---------------------------|
| NO  | Online Teaching Pedagogy in Higher<br>Education                        | NIFTEM, Sonipat             | 11.06.20 to 14.06.20      |
| 1.  | Nanomaterials: Synthesis and Characterization                          | N.I.T., Kurukshetra         | 11.03.2014 to<br>15.03.14 |
| 2.  | Formwork for Concrete Structures                                       | I.I.T., Delhi               | 17.06.2013 to 21.06.2013  |
| 3.  | Induction Training Programme Through ICT                               | GZS PTU Campus,<br>Bhatinda | 03.06.2013 to 07.06.2013  |
| 4.  | AUTOCAD  | NTTTRI, Chandigarh          | 27.05.2013 to 31.05.2013  |
| 5.  | Predictive Mathematical Models in Science and Engineering              | N.I.T., Kurukshetra         | 24.05.2013 to 25.05.2013  |
| 6.  | Computational Methods in Engineering                                   | N.I.T., Hamirpur            | 13.05.2013 to 17.05.2013  |
| 7.  | Seminar on Ethics & Value Education in Science<br>& Technology         | N.I.T., Kurukshetra         | 14.11.2011                |
| 8   | Structural Steel Design  | N.I.T., Kurukshetra         | 15.06.2009 to 20.06.2009  |
| 9   | Earthquake Risk Management   | I.I.T., Roorkee             | 03.11.2008 to 29.11.2008  |
| 10  | Advances in Civil Engineering  | N.I.T. Kurukshetra          | 21.01.2008 to 25.01.2008  |
| 11  | Server-Side Programming  | N.I.T. Kurukshetra          | 03.12.2007 to 07.12.2007  |
| 12  | Faculty Development Program on Entrepreneurial<br>Awareness            | N.I.T. Kurukshetra          | 25.06.2007 to 04.07.2007  |
| 13  | Programming in C   | N.I.T. Kurukshetra          | 04.10.2004 to 16.10.2004  |
| 14  | Genetic Algorithms for Engg. Optimization                              | I.I.T. Kanpur               | 07.04.2004 to 09.04.2004  |
| 15  | Matlab   | T.T.T.I Chandigarh          | 19.01.2004 to 23.01.2004  |
| 16  | Earthquake Resistant Design of Structures                              | I.I.I.T. Hyderabad          | 05.11.2003 to 09.11.2003  |
| 17  | Neural Network and Fuzzy Logic   | T.T.T.I., Chandigarh        | 14.07.2003 to 25.07.2003  |
| 18  | A workshop on system modeling and simulation                           | S.L.I.E.T, Longowal         | 31.07.2000 to 11.08.2000  |
| 19  | Modern Trends for efficient operation of M/C's and energy conservation | C.R.S.C.E., Murthal         | 17.07.2000 to 23.07.2000  |
| 20  | Low-Cost Housing   | G.N.D.E.C.,<br>Ludhiana     | 03.07.2000 to 14.07.2000  |
| 21  | Induction Training Program   | R.E.C., Kurukshetra         | May/June 2000<br>3 Weeks  |

### Academic/Administrative Contributions at Department/Institute Level:

- Faculty In-charge Alumni Cell
- Facutly In-charge Students Clubs
- Deputy Prof-in-charge public relation Office
- Prof-in-charge for Photography Club & Hiking and Tracking
- Co-coordinator ICI Student Chapter N.I.T. Kurukshetra.
- Prof. In charge Survey Lab.
- Deputy Prof-in-charge Department Time Table
- Member Admission Committee (AIEEE 2012)
- Nodal Officer (Civil Engg. Deptt.) for web site management
- Prof. In charge meeting, Information Management/RTI.
- Teacher In charge for Survey Camp at Rajpur, Dehradun and Karan Ka Tilla, Kurukshetra.
- Member Discipline Committee Convocation 2010, 2011.
- Member Departmental Purchase Committee
- Teacher In-Charge Poetry Legal Literacy Program at Distt. and State Level.
- Observer for CEET Exams
- Member various Purchase Committees
- Exams Duties as Deputy Superintend and Asstt. Superintend.
- Stock Verification Duties for various Departments
- Prof In-Charge attendance affairs B.Tech. and M.Tech Students (2007).
- Member (Structures for TEQIP exhibitions of books and LR's) 2006.
- Member Checking of Structural Design and Drawings committee of Institute Buildings.
- Member committee to prepare list of old books in Library.
- Member of the various committees of the Institute constituted time to time for various functions.
- Member, Organizing Committee for Annual Cultural Festivals held in 2004 to 2011
- Acted as Judge for various events during Cultural Festival.
- Acted as Judge for Civiera during Literati
- Anti-Ragging duties in boys hostel for fresher (1<sup>st</sup> year).
- Regular contact with students regarding their career planning.
- Counselor for group of boys from 1<sup>st</sup> year to final year

#### 6. Total number of awards / recognition / honors including Membership / Fellowship of **Professional Societies etc.:**

| Sr. | Society                                  | Type of          | Membership  |
|-----|--|------------------|-------------|
| No. |  | Membership       | Number      |
| 1   | ISTE (Indian Society of Technical        | Life Member      | LM-28058    |
|     | Education)                               |                  |             |
| 2   | ICI (Indian Concrete Institute)          | Life Member      | 9026        |
| 3   | IEI (Institute of Engineers, India)      | Associate Member | AM-089199-4 |
| 4   | Indian Society of Earthquake Technology, | Life Member      | LM-1591     |
|     | Roorkee.                                 |                  |             |
| 5   | Indian Society for wind Engineering      | Life Member      | LM-563      |
| 6   | Life Fellow Member, Indian Geotechnical  | Life Fellow      |             |
|     | Society, New Delhi.                      | Member           |             |

|           |      | <u> </u>   | 0 0             |                       |                       |
|-----------|------|--|-----------------|-----------------------|-----------------------|
| Sr.<br>No | Year | Торіс  | Students        | Co-<br>supervisor     | Completed/<br>Ongoing |
| 1.        | 2017 | Mechanical, durability and microstructural aspects of cement mortar incorporating micro and Nano Silica. | Rishav<br>Garg  | Dr. Manjeet<br>Bansal | Completed             |
| 2         | 2016 | Study of various Properties of Self Compacting<br>Concrete incorporating Nano Silica                     | Keenu           | Dr.Manjeet<br>Bansal  | Completed             |
| 3.        | 2022 | A study on Light weight aerated concrete (LAC) incorporating Industrial By-products                      | Pankaj<br>Kumar | Yogesh<br>Aggarwal    | On going              |

#### **Topic of Ph.D Completed/Ongoing**

# **M.Tech. Dissertations Supervised = 35** Number of M. Tech dissertations (supervised/ongoing):

| Sr.<br>No | Year        | Торіс   | Students                             | Co-supervisor          |
|-----------|-------------|---|--------------------------------------|------------------------|
| 1.        | 2004-<br>05 | Study of properties of Concrete<br>replacing fine aggregate with bottom<br>ash                | Ajay Lamba<br>(705/03)               | Dr. Paratibha Aggarwal |
| 2.        | 2008-<br>09 | Dynamic Modeling of Shear Walls in Asymmetric Building  | Sudipta Kumar Giri<br>(207126)       | Dr. Paratibha Aggarwal |
| 3.        | 2009-<br>10 | Seismic Evaluation of R.C.C Frame<br>Buildings with Linear & Non-Linear<br>Static Analysis    | Amar Deep Singh<br>208125            | Dr. Pankaj Agrawal     |
| 4.        | 2011-<br>12 | Static and Dynamic Analysis for<br>Seismic behaviour of Z-Shape<br>Building                   | Eswara P. Ramu Du<br>Rapeti (210026) |                        |
| 5.        | 2011-<br>12 | ANN Modeling of RCC Framed Multi<br>Storey Buildings with Opening in<br>Shear Wall            | Suman Kumar<br>210035                | Dr.Paratibha Aggarwal  |
| 6.        | 2011-<br>12 | Development of Waste Tyre Modified<br>Concrete  | Varun Kansal<br>(207130)             | Dr.Babita Saini        |
| 7.        | 2012-<br>13 | Experimental Investigations of<br>properties of Self-Compacting<br>Concrete with Metakaoline. | Aditi                                |                        |
| 8.        | 2013-       | Experimental Study of Properties  | S.Naveen Chander                     |                        |

|    | 14    | of Expanded Polystyrene Concrete             | 3120610               |                        |
|----|-------|--|-----------------------|------------------------|
| 0  | 2013- | Study of effect of Red Mud on the            | Kumar Roshan          |                        |
| 9. | 14    | Properties of Concrete                       | 3120609               |                        |
|    | 2014- | Study of properties of SCC using             | Ranbir Singh          |                        |
| 10 | 15    | blended cement                               | (3130616)             | Dr.Paratibha Aggarwal  |
|    |       | Study of Chloride Resistance of              |                       |                        |
| 11 | 2014- | Concrete Containing Blended                  | M.Ravi Kumar          | Dr.Paratibha Aggarwal  |
|    | 15    | Cement.                                      | (3130505)             |                        |
|    |       | Comparative Analysis of multi storied        |                       |                        |
| 12 | 2014- | building for ideal location of shear         | Gaurav Ganotra        | Dr.Paratibha Aggarwal  |
|    | 15    | wall   | (3130708)             |                        |
|    | 2015- | Study of Properties of SCC                   | Nitin Goel            |                        |
| 13 | 16    | Containing Micro and Nano Silica             | 3140701               |                        |
|    | 10    | Experimental study of properties of concrete | 5140701               |                        |
| 14 | 2016  | using Bagasse Ash                            | Aman                  |                        |
|    | 2010- | Comparative study of Mechanical properties   |                       |                        |
| 15 | 1/    | of porous concrete by using Normal and       | Deepak                |                        |
|    |       | Demolished aggregates.                       |                       |                        |
| 16 | 2017- | huilding with different configurations of    | Ankur Kauchik         |                        |
| 10 | 18    | RCC walls                                    | Alikul Kausilik       |                        |
|    |       | Pushover Analysis and modeling of L-         |                       |                        |
| 17 | 2010  | Shaped RCC Building                          | Aditya Sood 31702307  |                        |
|    | 2018- | Analysis and AI Modeling of                  |                       |                        |
| 18 | 19    | Symmetrical RCC Building Using               | Vikrant Rana 31702302 |                        |
|    |       | Pushover Analysis                            |                       |                        |
| 19 |       | Effect of Irregularities on Progressive      | Manik Kalia           |                        |
| 17 | 2019- | Collapse potential of RC Frame               | (31802308)            |                        |
| 20 | 20    | Seismic Effect on Structures Having          | Harpreet Singh        |                        |
| 20 | -     | Coupled Shear Wall with and without          | (31802315)            |                        |
|    |       | Modelling of compressive strength of         | Anshul Aggarwal       |                        |
| 21 |       | concrete at elevated temperature             | (31602318)            |                        |
|    |       | Prediction of Strength of SCC containing     | Pranial Kumar         |                        |
| 22 | 2020  | Silicas                                      | Pandey (31902307)     |                        |
| 22 | 2020- | Modelling of Properties of mortar and        | Ritesh Kumar          |                        |
| 23 | 21    | concrete incorporating limestone             | (31902414)            |                        |
|    |       | Prediction of properties of concrete using   | Deenak Singh Kaneri   |                        |
| 24 |       | recycled aggregates obtained from            | (31902319)            |                        |
|    |       | Demolished concrete                          |                       |                        |
| 25 |       | Seismic Benavior of Multistorey RCC          | Sukh Sagar Shukla     |                        |
| 23 |       | varving slope                                | 32012323              |                        |
|    | 2021- | Development of Priority Index based on       | Saurabh Singh         |                        |
| 26 | 22    | functional and structural condition of       | Yaday                 | Dr. Aakash Gupta       |
| _  |       | Flexible Road Network                        | 32012422(Tans)        | CRRI, NEW DELHI        |
| 77 | 1     | Stabilization of Clayey Soil using           | Kaushal Tanwar        |                        |
| 21 |       | Chemicals as Additives                       | 32012209 (Soil)       |                        |
|    |       | Comparative Seismic Analysia and             | Prabhat Gart          |                        |
| 28 |       | Modelling of RCC Building with and           | (32112306) STR        |                        |
|    |       | without Infill Walls                         |                       |                        |
| 20 | 2022  | Study of Tall Building Settlement due to     | (Roll No              |                        |
| 29 | 2022- | Soil Consolidation During Earthquake         | 32112322)             |                        |
|    | 23    | Behavior of Braced Excavation Under          | Anjali Kumari         |                        |
| 30 |       | Rainfall Infiltration and Dynamic Forces     | (32112220)            |                        |
| 21 | 1     | Study on the use of Natural Bio-oil as a     | Shivam Kumar          | Dr. G. Bharath, Senior |
| 51 |       | Bitumen Modifier",                           | (32112423)            | Scientist, CSIR- CRRI, |

|    |       |   |                          | New Delhi             |
|----|-------|---|--------------------------|-----------------------|
| 32 |       | Modelling of Multistorey Buildings<br>with and without RCC Shear Walls<br>using software                | Alok Gusain<br>32212314  | Dr.Paratibha Aggarwal |
| 33 | 2023- | Study of Mechanical properties of<br>marble dust concrete using DOE<br>technique                        | Vineet Kumar<br>32212320 | Dr.Paratibha Aggarwal |
| 34 | 24    | Comparative study of RCC Buildings<br>on sloping ground with and without<br>infill walls using software | Isha<br>32212316         | Dr.Paratibha Aggarwal |
| 35 |       | Utilisation of waste polythene in Self<br>Compacting Concrete   | Sant Kumar<br>32212313   | Dr.Paratibha Aggarwal |

## **MAJOR PROJECT**

| Sr. | Year | Торіс  | Students   |  |  |
|-----|------|--|--|--|--|
| 1.  | 2006 | Structural Design of Multistoried R.C.C.<br>Frame and Comparison with Staad Pro.<br>Software                                   | <ol> <li>Akshat K.Singh,</li> <li>Himanshu,</li> <li>Gurdeep Singh,</li> <li>Amit Kumar,</li> <li>Emmanuel Joy,</li> <li>Jonathan Talukdar,</li> </ol>   | <ol> <li>Gowtham V.,</li> <li>Ravish Dubey,</li> <li>Sameer Sonane,</li> <li>Naresh Kumar</li> <li>Alok Singh,</li> </ol>                                      |  |
| 2.  | 2007 | Structural Design of Multistoried R.C.C. Frame<br>and Comparison with Staad Pro. Software                                      | 1. Vishal Garg,<br>2. Rohit Puri,<br>3. Dhanya Kalai,  | <ol> <li>Manish Chauhan</li> <li>Sachin Sukhija</li> </ol>   |  |
| 3.  | 2007 | Analysis of a Trapezoidal Corrugated Shell<br>Used in a Satellite Strengthened by a Ring<br>Stiffener by Finite Element Method | 1. Sharat N.   |  |  |
| 4.  | 2007 | Design of Steel Plate Girder Railway Bridge<br>and its Analysis Using NISA   | 1. Rahul Tiwari,<br>2. Kavita Soday  |  |  |
| 5.  | 2008 | Static and Dynamic Analysis of Multi-<br>Storeyed Building   | 1. Sourav Pahuja,<br>2. Nishant Singla,<br>3. Brijesh Kumar,<br>4. Suryadev Prashad,   | <ol> <li>Nitin Malhotra,</li> <li>Omveer Singh</li> <li>Anil Narwal</li> </ol>   |  |
| 6   | 2009 | Micro Structure Analysis using XRD and SEM of Concrete containing Fourdry Sand   | 1. Ankit Chktkara,<br>2. Suranshu Arora  |  |  |
| 7   | 2010 | Manual Static and Dynamic Analysis of a 14<br>Storey Building with Shear Wall and its<br>Design with Staad Pro and Sap 2000    | 1. Manish Kumar,<br>2. Apoorv Mittal,  | <ol> <li>Ankit R.Dubey,</li> <li>Charan D.Singh</li> </ol>   |  |
| 8   | 2010 | Structural Analysis and Design of<br>Auditorium By-Staad Pro and SAP   | <ol> <li>Chirag Sindhu,</li> <li>Manoj Kumar Garg,</li> <li>Barjinder S. Ghai,</li> <li>Anuj Gupta,</li> <li>Narinder Kambala,</li> </ol>  | <ol> <li>Kunal Devangan,</li> <li>Kartkeya Gupta,</li> <li>Aritra Khan,</li> <li>Ramesh Kumar</li> </ol>   |  |
| 9   | 2011 | Design of Multi Storey Class Room Complex  | 1. Nikhil Gauri,<br>2. Sahil Bhalla,<br>3. Rohit Singh,<br>4. Sabinus John Guria,  | 5. Saurabh,<br>6. Priyansh Agrawal,<br>7. Bhavik Bhamnia   |  |
| 10  | 2011 | Static and Dynamic Analysis of U-Shaped<br>Buildings   | 1. Ruchika Sharma,<br>2. Jyoti Tak,  | 3. Ravi Malik,<br>4. Faridullah  |  |
| 11  | 2012 | Modeling the properties of SCC using<br>Artificial Neural Network  | <ol> <li>Narsing Mourya,</li> <li>Sumit K. Ranjan,</li> <li>Antan Tyagi,</li> <li>Kabir Bajaj,</li> <li>Gaurav Sharma,</li> <li>Ram Kumar Saran,</li> <li>Rajat Gupta,</li> <li>Beer Singh,</li> </ol> | <ol> <li>Mahendra,</li> <li>Amit Kumar,</li> <li>Naresh Kumari,</li> <li>Nisha Dhakar,</li> <li>Akhil Goyal,</li> <li>Md. R.Nezaami,</li> <li>Rahul</li> </ol> |  |
| 12  | 2012 | Manual Static and Dynamic analysis of<br>Lecture Hall Complex and its Design with<br>Staad Pro.                                | 1. Akash Sharma,<br>2. Krishna,<br>3. Mohan Neelesh,<br>4. Amod Anand,<br>5. Annu Malik,   | 6. Gopal,<br>7. Gaurav Walia,<br>8. Pardeep,<br>9. Vikas   |  |
| 13  | 2013 | Analysis and Design of Mulitstorey<br>Shopping Complex   | 1. Ankit Khurana,<br>2. Drishti Batra,<br>3. Neeraj Meena,<br>4. Lalit, Mukesh,  | <ol> <li>Nitin,</li> <li>Naveen Hooda,</li> <li>Divesh,</li> <li>Mahesh Meena</li> </ol>   |  |
| 14  | 2013 | Experimental Study of Light weight Concrete<br>using Expanded Polystyrene Aggregates   | Ankit<br>Vipul<br>Anwarul Hussain<br>Sahil Khurana   | Deepak<br>Saurabh<br>Vibhu<br>Abdullah Khan  |  |

|    |      |  | Vipin Tiwari  |  |
|----|------|--|---|--|
| 15 |      | Study of Effect of Alccofine and Flyash on<br>Strength of Cement-Sand Mortar         | Harshit Garg<br>Sahil Goyal<br>Vishal Singh<br>Ashish   | Armaan Gill<br>Sudhir Kumar<br>Tarun Azad<br>Shivam Shivam Gupta                                       |
| 16 | 2014 | Modelling the properties of SCC using<br>Artificial Neural Network                   | Narsingh Mourya<br>Sumit K Ranjan<br>Antan Tayagi<br>Kabir Bajaj<br>Gaurav Sharma<br>Ram Kumar Saran<br>Rajat Gupta | Beer Singh<br>Mahendra<br>Amit Kumar<br>Nisha Dhakar<br>Akhil Goyal<br>Md. Raja Nezaami<br>Rahul       |
| 17 |      | Experimental Study of Light weight concrete<br>using Expanded Polystyrene Aggregates | Anwarul Hussain   |  |
| 18 | 2015 | Comparative Study of Static and dynamic<br>Analysis of a multi-storeyed Building     | Apoorv Vohra<br>Ankit Gumber<br>Ketan Garg<br>Lalit Jindal<br>Abhishek K Bhart                                      | Punit Yadav<br>Sajjan Singh<br>Abdul Majid<br>Shikesh Kumar<br>Ajay                                    |
| 19 | 2016 | Building Designing in Staad Pro  | Jatin Nagpal<br>Sardar Singh Ranwa<br>Sunil K Meena<br>Taj Mohammad<br>Ravi Kumar                                   | Rahul Singh Bhati<br>Antariksh Partap Singh<br>Sumit   |
| 20 |      | Structural Design of Proposed Hospital<br>Building using Staad Pro                   | Yugmani Kumar   |  |
| 21 | 2017 | Effect of Bottom ash as replacement of<br>Cement in Conctete                         | Kamesh<br>Shashi Bhushan Tara<br>Ashutosh Narwal<br>Aman Soni<br>Pyiyanka Sagar<br>Sheetal Meena<br>Sushil Kulhari  | Narender Kumar<br>Amit Panchal<br>Saurabh Jagarbad<br>Reen Rani Meena<br>Ranjeet Arya<br>Saurabh Batar |

| Chapters     | in | the | Book | Published | on | relevant | subjects | from | reputed | international |
|--------------|----|-----|------|-----------|----|----------|----------|------|---------|---------------|
| publishers – |    |     |      |           |    |          |          |      |         |               |

|                  | Title   | Edition  | Publisher  | Co-author                                      |
|------------------|---|--|--|--|
| воок             | Alternative Cementitious<br>Materials for Self-<br>Compacting Concrete:<br>Woodhead Publishing<br>Series in Civil and<br>Structural<br>Engineering (Book) | 1st  | Woodhead<br>Publishing Series<br>in Civil and<br>Structural<br>Engineering | Aggarwal, P.,<br>Sihag, P.,<br>Mohammed,<br>A. |
| BOOK<br>CHAPTERS | SCC containing rice husk<br>ash (Book Chapter)  | Alternative<br>Cementitious<br>Materials for Self-<br>Compacting<br>Concrete:<br>pp. 153-174 | Woodhead<br>Publishing Series<br>in Civil and<br>Structural<br>Engineering | Aggarwal,P., ,<br>Sihag, P.                    |
|                  | Recycled/waste<br>plastic (Book Chapter)  | Alternative<br>Cementitious<br>Materials for Self-<br>Compacting<br>Concrete:<br>pp. 89-104  | Woodhead<br>Publishing Series<br>in Civil and<br>Structural<br>Engineering | Kumar, A.,                                     |
|                  | Nanosilica in self-<br>compacting<br>concrete (Book Chapter)  | Alternative<br>Cementitious<br>Materials for Self-<br>Compacting<br>Concrete:<br>pp. 105-118 | Woodhead<br>Publishing Series<br>in Civil and<br>Structural<br>Engineering | Garg, A.,<br>Aggarwal, P.,                     |

#### 6.Book /Book Chapters

| Sr.<br>No. | Title of Chapter   | Title of Book   | Name of<br>Publications  | Year of publication |
|------------|--|---|--|---------------------|
| 1          | Prediction of Compressive<br>Strength at Elevated<br>Temperatures<br>Using Machine Learning<br>Methods 37-52<br>Anshul Aggarwal, Yogesh<br>Aggarwal, and Paratibha<br>Aggarwal   | Applications of<br>Computational<br>Intelligence<br>in Concrete<br>Technology | CRC Press,<br>Taylor and<br>Francis<br>eBook<br>ISBN97810031<br>84331        | 14.03.22            |
| 2          | Prediction of Compressive<br>Strength of Self-Compacting<br>Concrete Containing Silica's<br>Using Soft Computing<br>Techniques 163-182<br>Pranjal Kumar Pandey,<br>Paratibha Aggarwal,<br>Yogesh Aggarwal, and Sejal<br>Aggarwal | Applications of<br>Computational<br>Intelligence<br>in Concrete<br>Technology | CRC Press,<br>Taylor and<br>Francis<br>eBook<br>ISBN97810031<br>84331        | 14.03.22            |
|            | Strength properties of SCC<br>Book Pages 83-115<br>Available online 24 January<br>2020.<br>https://doi.org/10.1016/B978  | Self-Compacting<br>Concrete: Materials,<br>Properties and<br>Applications     | Publisher<br>Woodhead Publishing<br>Elsevier<br>eBook ISBN:<br>9780128173701 | 01.01.2020          |

| <u>-0-12-817369-5.00007-6</u>   |  | Paperback ISBN:<br>978012817369   |            |
|---|--|---|------------|
| Carbonation and corrosion of<br>SCC<br>Book Pages 147-193<br>Available online 24 January<br>2020.<br>https://doi.org/10.1016/B978<br>-0-12-817369-5.00007-6 | Self-Compacting<br>Concrete: Materials,<br>Properties and<br>Applications  | Publisher<br>Woodhead Publishing<br>Elsevier<br>eBook ISBN:<br>9780128173701<br>Paperback ISBN:<br>978012817369 | 01.01.2020 |
| Strength Properties and Chloride<br>Permeability of Self-Compacting<br>Concrete   | Pro 065, 2 <sup>nd</sup> International<br>Symposium on Design,<br>Performance and Use of Self-<br>Consolidating Concrete, SCC-<br>2009<br>ISBN-978-2-35158-093-6 | RILEM Publications  | 2009       |
| Compressive Strength modeling<br>of SCC using Linear Regression<br>and Artificial Neural Network<br>Approach  | Pro 065, 2 <sup>nd</sup> International<br>Symposium on Design,<br>Performance and Use of Self-<br>Consolidating Concrete, SCC-<br>2009<br>ISBN-978-2-35158-093-6 | RILEM Publications  | 2009       |
| Modeling the Properties of Self-<br>Compacting Concrete: An M5<br>Model Tree Based Approach   | Pro 054, Fifth International<br>RILEM symposium on Self<br>Compacting Concrete- SCC<br>2007<br>ISBN-978-2-35158-047-9  | RILEM Publications  | 2007       |
| Development, Investigation<br>and Applications of Self-<br>compacting concrete  | Pro 054, Fifth International<br>RILEM symposium on Self<br>Compacting Concrete- SCC<br>2007<br>ISBN-978-2-35158-047-9  | RILEM Publications  | 2007       |

# Significant outreach Activity -

| Sr.<br>No. | Name of the activity  | Place   | Date                       |
|------------|---|---|----------------------------|
|            | Contemporary Advances in Sustainable and Integrated<br>Infrastructure   | Manav Rachna International<br>Institute of Research and Studies,<br>Faridabad | 02.08.21<br>to<br>06.08.21 |
|            | Expert Lecture in Strengthening Capacities for Hazardous and Disaster Risk Management (SCHDRM-2018)                 | NIT, Kurukshetra  | 01 to 06<br>May            |
| 1          | Expert Lecture (Advances in Structural Engineering 2017)  | NIT Kurukshetra   | 16-21<br>Jan.2017          |
| 2          | Support and Guidance, MASSY   | Maharaja Aggarsain Siksha<br>Samman Yogna                                     | 2014<br>till Date          |
| 3          | Analysis and Design of Structures using STAAD PRO   | DCRUST Murthal  | 2015                       |
| 4          | Coordinator Faculty-in-charge, CON? Q   | UTCL-<br>CHD.TS@ADITYABIRLA.COM   | 2013                       |
| 5          | Support and Guidance, Shiksha Abhiyan   | NIT, Kurukshetra  | 2011<br>till Date          |
| 6          | Earthquake Effects on Structures, Organized by Earthquake Risk<br>Management MHA under NPCBEERM 2009.               | NIT Kurukshetra   | 2009                       |
| 7          | Vibration – I, SDOF (Single Degree of Freedom), Organized by Earthquake Risk Management MHA under NPCBEERM 2009.    | NIT Kurukshetra   | 2009                       |
| 8          | Vibration –II, SDOF (Single Degree of Freedom), Organized by Earthquake Risk Management MHA under NPCBEERM 2009.    | NIT Kurukshetra   | 2009                       |
| 9          | Earthquake Effects on Structures, Organized by Earthquake Risk<br>Management MHA under NPCBEERM 2008.               | NIT Kurukshetra   | 2008                       |
| 10         | Vibration – I, SDOF (Single Degree of Freedom), Organized by<br>Earthquake Risk Management MHA under NPCBEERM 2008. | NIT Kurukshetra   | 2008                       |
| 11         | Vibration –II, SDOF (Single Degree of Freedom), Organized by<br>Earthquake Risk Management MHA under NPCBEERM 2008. | NIT Kurukshetra   | 2008                       |
| 12         | Earthquake Effects on Structures, Organized by Earthquake Risk<br>Management MHA under NPCBEERM 2006.               | NIT Kurukshetra   | 2006                       |
| 13         | Vibration – I, SDOF (Single Degree of Freedom), Organized by<br>Earthquake Risk Management MHA under NPCBEERM 2006. | NIT Kurukshetra   | 2006                       |
| 14         | Vibration –II, SDOF (Single Degree of Freedom), Organized by<br>Earthquake Risk Management MHA under NPCBEERM 2006. | NIT Kurukshetra   | 2006                       |