

Mohit VERMA

WORK EXPERIENCE

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| <i>Current</i>
SINCE AUG 2018 | Post-doc, UNIVERSITÉ LIBRE DE BRUXELLES, BRUSSELS Belgium.
<i>Precision Mechatronics Laboratory (PML)</i>
Project: HDG06 Wal'innov - Trusteye project
Presently working on sensor active stabilization. |
| SINCE NOV 2011 | Scientist, CSIR - STRUCTURAL ENGINEERING RESEARCH CENTRE, India.
<i>Advanced Seismic Testing and Research (ASTaR) Laboratory</i>
Research Interest: Hybrid testing, active and passive control, impact dynamics
Worked on hybrid simulation of civil engineering structures. |
| AUG 2013-MAY 2014 | Fulbright Visiting Research Scholar, UNIVERSITY AT BUFFALO, NY, USA
<i>Department of Civil, Structural and Environmental Engineering</i>
Worked under the guidance of Prof. M. V. Sivaselvan on impedance matching approach for dynamic hybrid simulation. A controller was designed using linear matrix inequalities (LMIs) to drive an active mass driver in such a way that it imitates the virtual substructure. |

EDUCATION

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| 2012-2018 | Doctor of Philosophy in EARTHQUAKE ENGINEERING
Academy of Scientific and Innovative Research (AcSIR) , India
Thesis: "Optimal controller design for dynamic hybrid simulation based on impedance matching approach" Advisor: Dr. J RAJASANKAR
CGPA: 10/10 |
| 2009-2011 | Master of Technology in ENGINEERING OF STRUCTURES
Academy of Scientific and Innovative Research (AcSIR) , India
Thesis: "Simulation of real-time substructuring (RTS) to evaluate dynamic response of a structure" Advisor: Dr. J RAJASANKAR
CGPA: 10/10 |
| 2005-2009 | Bachelor of Engineering (Hons.) in CIVIL ENGINEERING
Birla Institute of Technology and Science, Pilani (BITS, Pilani) , India
CGPA: 8.37/10 |

AWARDS AND SCHOLARSHIPS

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| 2017 | Ramaiah Certificate of Merit for paper published in Applied Soft Computing |
| 2013 | Fulbright-Nehru Doctoral and Professional Research Fellowship, 2013-14 |
| 2011 | International travel grant to present a paper in Seoul, South Korea. |
| 2004 | Jindal Jubilee Gold Medal for best outgoing student and Best Artist award |
| 2004 | Certificate of merit by C.B.S.E. outstanding academic performance in Physics |

SELECTED PUBLICATIONS

International Journals (Published)

- J1 Verma, M., & Rajasankar, J. (2012). Improved model for real-time substructuring testing system. *Engineering Structures*, 41, 258-269.
- J2 Verma, M., Rajasankar, J., & Iyer, N. R. (2014). Fuzzy logic controller for real-time substructuring applications. *Journal of Vibration and Control*, 20(8), 1103-1118.
- J3 Verma, M., Rajasankar, J., & Iyer, N. R. (2015). Numerical assessment of step-by-step integration methods in the paradigm of real-time hybrid testing. *Earthquakes and Structures*, 8(6), 1325.

Manuscripts under review/preparation

- R1 Verma, M., Sivaselvan, M. V., & Rajasankar, J. (2017). Impedance matching approach for dynamic substructuring. To be submitted to *Earthquake Engineering and Structural Dynamics* (under preparation).

Technical Reports (indexed)

- T1 Verma, M., Sivaselvan, M. V., & Rajasankar, J. (2017). Optimal control design for dynamic substructuring. Technical Report MCEER. US Multidisciplinary Centre for Earthquake Engineering and Research (under preparation).

Book Chapters

- B1 Verma, M., Stefanaki, A., Sivaselvan, M. V., Rajasankar, J., & Iyer, N. R. (2015). A Convex Optimization Framework for Hybrid Simulation. In *Advances in Structural Engineering*, 221-231. Springer India.

National Journals

- NJ1 Verma, M., Sivaselvan, M. V. & Rajasankar, J. (2017). Dynamic hybrid simulation using electromagnetic actuators. *Journal of Structural Engineering (JoSE)*, 44(3), 1-5.
- NJ2 Verma, M., Rajasankar, J., & Iyer, N. R. (2013). Numerical evaluation of controllers for delay compensation in real-time substructuring. *Journal of Structural Engineering (JoSE)*, 40(1), 29-34.

Conference Proceedings

- C1 Verma, M., Sivaselvan, M. V. & Rajasankar, J. (2016). Real-time hybrid simulation using an electromagnetic shaker. *Proceedings of Structural Engineering Convention, India (SEC 2016)*, Paper ID: 426.
- C2 Verma, M., Stefanaki, A., Sivaselvan, M. V., Rajasankar, J., & Iyer, N. R. (2014), Pareto Optimal Controller For Hybrid Simulation, e-proceedings of ICCMS 2014, 1608-1616.
- C3 Verma, M., Rajasankar, J. & Nagesh R. Iyer, (2012), Performance evaluation of control strategies for real-time substructuring, e-Proceedings of the ICCMS 2012, IIT Hyderabad.
- C4 Verma, M. & Rajasankar, J. (2011). Simulation of Real-time Substructuring to evaluate the Dynamic Response of a Structure. *Proceedings of The 2011 World Congress on Advances in Structural Engineering and Mechanics (ASEM11plus)*, Seoul, Korea.
- C5 Verma, M. & Rajasankar, J. (2010). Real-time substructuring techniques for seismic testing of large structures. *Proceedings of Structural Engineering Convention, India (SEC 2010)*, Vol. 2, 1033-1043.