

Dr. HUZUR SARAN V.

Assistant Professor
Department of Mechanical and Industrial Engineering
Indian Institute of Technology, Roorkee 247 667 INDIA

Tel: +91-01332-285682
Fax: +91-01332-285665
Email: saranfme@iitr.ernet.in

Education

B.E. (Mechanical Engineering)	Agra University, Agra, 1984
M. Tech. (Machine Design)	Roorkee University, Roorkee, 1987
Ph. D. (Mechanical Engg.)	I.I.T. Roorkee, Roorkee, 2004 Please see topic below*

* Ph. D. thesis Topic: *“Vertical Dynamics of Three wheeled motor vehicles”*.

Area of Academic/Research Interest

Machine Design, Vehicle dynamics and Tyre dynamics.

Dissertations Supervised

Ph. D. : 1 (ongoing)
M. Tech.: 7 + 4 (ongoing)

Publications

Journals/ Conferences	Published
International Journals	02
National Journals	01
International Conference/ Symposium	03
National Conference/ Symposium	01

Sponsored Projects

1. *“Vertical Dynamics and Ride Analysis of Three wheeled motor vehicles”*, Co-Investigator, Research Project of S.E.R.C., Department of Science and Technology, New Delhi, 1998- 2001.

Consultancy Projects

1. *“Road Tests on Motor Cycles”*, TVS Suzuki Ltd., Hosur, 1997.
2. *“Analysis and Design Recommendations for Stability and Dynamic Behaviour of Three-Wheeled Motor Vehicles”*, TVS Motor Co. Hosur, March-Sept. 2003.

Joint International Projects

1. Team member, ASIAN – SWEDISH RESEARCH LINKS PROGRAMME Swedish International Development Cooperation Agency (SIDA) Project, **Influence of low frequency vibration on activity comfort while travelling by railway vehicles**, Jan. 2006- Dec. 2008.
2. Team member, European Commission Asia-Link Programme, **Collaboration in Research and Development of New Curriculum in Sound & Vibration**, Jan. 2006 – Dec. 2008.

Association with Professional Bodies

1. Member, Executive Committee, The Institution of Engineers (India), Roorkee Local Chapter, 2004-06.
2. Life Member, The Institution of Engineers (India) (HQ. Calcutta).
3. Life Member, Indian Society for Mechanical Engineers (HQ. New Delhi).

Awards and Prizes

1. **The Brij Mohan Lal Prize**
for best paper published in The Institution of Engineers (India) Journal, titled “Road roughness measurements using PSD Approach”, Jan. 2006.
2. **Certificate of Merit**
for best paper in the 13th International Conference of ISME, M.I.E.D., IIT Roorkee, Roorkee, titled “Ride behaviour analysis of a three-wheeled vehicle”, Dec. 30-31, 2003

List of research publications

1. Saran, V.H. and Goel, V. K., 2000, “Rolling dynamic stiffness and damping characteristics of small sized pneumatic tyres”, Proc. I. Mech.E, Part D, 214(3), pp. 243-248.
2. Saran, V. H., Goel, V. K., and Ramji, K., 2003, “Vibrational characteristics of small size bias ply tyres”, National Seminar on Vehicle Dynamics, Visakhapatnam.
3. Saran, V.H., Goel, V.K. and Mishra, B.K., 2003, “Ride behaviour analysis of a three-wheeled vehicle”, 13th International Conference of ISME, Mech. & Indl. Engg. Deptt., IIT Roorkee, Roorkee.
4. Ramji, K, Goel, V. K., and Saran, V. H., 2002, “Stiffness properties of small sized pneumatic tyres”, Proc. I. Mech.E, Part D, 216, pp.107-114.
5. Ramji, K., Saran, V. H., Gupta, A., Goel, V. K. and Kumar, V., Nov. 2004, “Road roughness measurements using PSD Approach”, Journal of Institution of Engineers (India), vol. 85, , pp. 193-201.
6. Ramji, K. , Saran, V. H., Goel, V. K., and Deep Kusum, 2003 “Optimum design of suspension system for three-wheeled motor vehicle-using Random Search Optimization Technique”, 18th I.A.V.S.D. Symposium on Dynamics of Vehicles on Roads and on Tracks, Kanagawa, Japan.
7. Saran, V.H. and Goel, V.K., Dec. 6-9, 2004, “Ride Behaviour of Three-Wheeled Vehicle- Model and Optimization”, VETOMAC-3 & ACSIM 2004 Conference, New Delhi.

M. Tech Thesis supervised

1. Srikanth Nuthakki, “Stress analysis of railway wheel using Finite Element Method”, 2006.
2. Manoj Sharma, “Lateral stability and handling behaviour of Three-wheeled vehicles”, 2006.
3. Sudhakar Yadala, “Analysis of impact forces between railway wheels and track, 2006.
4. P.V. Nageswara Rao, “Lateral dynamic behaviour of Three-wheeled motor vehicles”, 2001.
5. D.K. Dhote, “Investigations of vertical vibrations of small size pneumatic tyres”, 1998.
6. Anumandla Venkanna, “Vertical dynamic evaluation of Three-wheeled motor vehicles”, 1995.
7. Kailash Jat, “Vertical dynamics of Bajaj Rear Engine Autorickshaw”, 1995.