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EDUCATIONAL QUALIFICATIONS

- Ph. D. [2003]: *Transportation Engineering* section, Department of Civil Engineering, Indian Institute of Technology (IIT), Kharagpur, West Bengal, India.
- M. E. (*Highway & Transportation Engineering*) [1997]: Civil Engineering Department, Faculty of Technology, M. S. University of Baroda, Vadodara, Gujarat, India.
- B. E. (*Civil Engineering*) [1994]: Osmania University, Hyderabad, India.

TEACHING EXPERIENCE

Sl No	Designation	Institution/University	Period	
			From	To
1	Professor	Department of Civil Engineering, University College of Engineering, Osmania University, Hyderabad	2019	Till today
2	Associate Professor		2016	2019
3	Assistant Professor		2007	2016
4	Associate Professor	Department of Civil Engineering, VNR Vignana Jyothi Inst. of Eng. & Tech, Hyderabad.	2006	2007
5	Assistant Professor		2005	2006
6	Lecturer	Dept., of Civil Engineering, Institute of Technology, Banaras Hindu University (BHU), Varanasi, U. P.	2004	2005
7	Academic Consultant	Department of Civil Engineering, University College of Eng., Osmania University, Hyderabad.	2001	2004
8	Institute Scholar	Department of Civil Engineering, Indian Institute of Technology (IIT), Kharagpur, West Bengal.	1997	2001

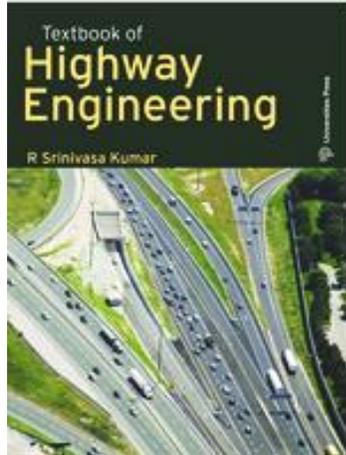
NATIONAL AWARD

Indian Roads Congress (IRC) Commendation Certificate for The Best Research Paper Publication in **IRC** Journal during the year 2001-2002.

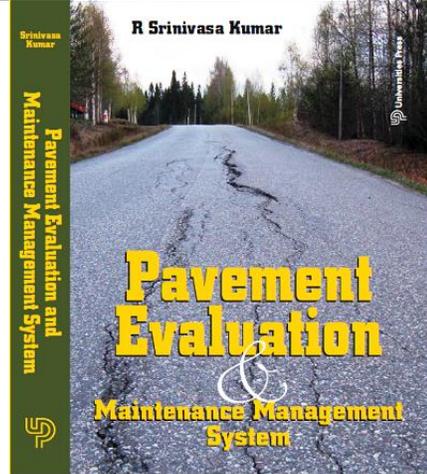
Indian Raods Congres (IRC) Membership No. 102681

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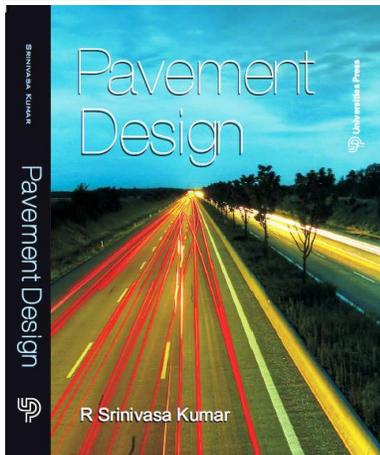
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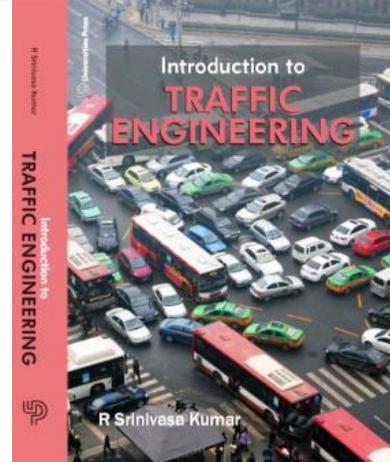
1. Text Book of Highway Engineering (2011)
Pages:660, ISBN 978 7371 681 2



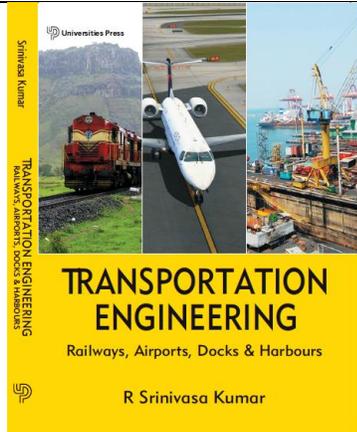
4. Pavement Evaluation & Maintenance Management System, 2014
Pages: 588, ISBN 978-81-7371-922-6



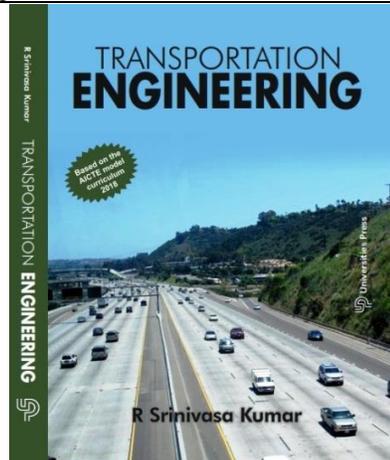
2. Pavement Design (July 2013)
Pages: 360, ISBN 978-81-7371-885-4



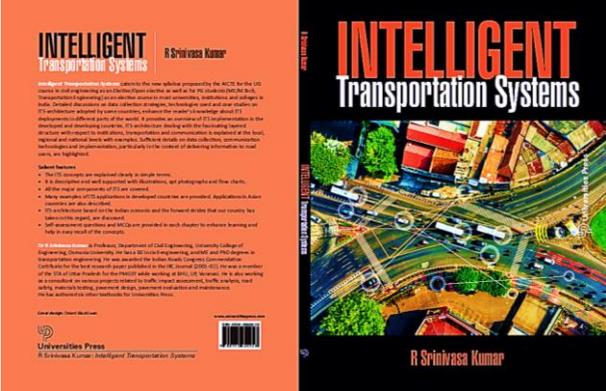
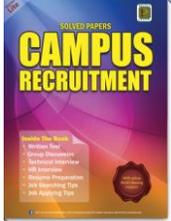
5. Introduction to Traffic Engineering, 2018
Pages:809, ISBN ISBN 978-93-86235-47-3



3. Transportation Engineering (Railways, Airport, Docks & Harbours) 2014



6. Transportation Engineering, 2020

Pages:348, ISBN 978-81-7371-924-0	Pages: 428 ISBN: 9789389211160
	<p>7. Intelligent Transportation Systems 2022, Pages: 142</p> <p>ISBN: 978-81-954009-2-8</p>
	<p>Contributed in a Chapter</p>

LIST OF PUBLICATIONS (In JOURNALS):

1. Srinivasa Kumar. **Information Technology for Highway Engineers**, *Journal of the Civil Engineering Society*, Indian Institute of Technology, Kharagpur, May 1999.
2. Srinivasa Kumar, **Modeling Rutting Failures of Pavements - A Brief Review**, *Journal of The Civil Engineering Society*, Indian Institute of Technology, Kharagpur, August 2000.
3. Srinivasa Kumar, Santhosh Kumar, A. Das, K. S. Reddy, M. Mazumdar, and B. B. Pandey. **Development of an Impact Apparatus for Evaluation of Elastic Modulus of Pavement Layers**, *Indian Geotechnical Journal*, Vol 31, No.3 July 2001.
4. Srinivasa Kumar, K. S. Reddy, M. Mazumdar and B. B. Pandey. **An ANN Based Model for Backcalculation of Pavement Layer Moduli**, Highway Research Bulletin, Highway Research Board, *IRC*, pp.63-76, 2001.
5. Srinivasa Kumar, K. S. Reddy, M. Mazumdar and B. B. Pandey. **Back-calculation of Pavement Layer Moduli by Regression Analysis**, Highway Research Bulletin, Highway Research Board, *IRC*, No. 68, pp 55-70, June, 2003.
6. Srinivasa Kumar, K. S. Reddy, M. Mazumdar and B. B. Pandey. **Models for Estimation of Subgrade Moduli from DCP Tests**, *The International Journal of Pavement Engineering & Asphalt Technology (ISSN 1464-8164)*,. Volume 4, Issue 2 December 2003.
7. A. Reddy, R. Srinivasa Kumar, K. S. Reddy and B. B. Pandey. **A Low Cost Falling Weight Deflectometer for Pavement Evaluation in India**. *The International Journal of Pavement Engineering & Asphalt Technology(ISSN 1464-8164)*, Volume 4, Issue 1 May 2003.
8. Srinivasa Kumar, K. S. Reddy, M. Mazumdar and B. B. Pandey. **Regression Models for Estimation of In-situ Subgrade Moduli from DCP Tests**, *Journal of Indian Roads Congress*, Indian Highways, Vol. 31, No. 7, pp 5-19, July 2003.

9. Srinivasa Kumar and K. S. Reddy. **Prediction of Flexible Pavement Layer Moduli in India.** *The International Journal of Pavement Engineering & Asphalt Technology*(ISSN 1464-8164), Volume 5, Issue 1 May 2004.
10. Srinivasa Kumar and Rao, **Introduction of Professional Ethics as a Mandatory Subject in Engineering Curriculum,** *The Indian Journal of Technical Education of ISTE* (ISSN 0971-3034), Vol. 33(2), April/June 2010.
11. Srinivasa Kumar, **Role of Ethics and Code of Conduct in Civil Engineering Profession,** *Journal of Indian Roads Congress,* Indian Highways, IRC, pp.53-57, Vol. 38 (12), December 2010.
12. Srinivasa Kumar, **Public Private Partnerships for Development of Road Infrastructure in India,** *Journal of Indian Roads Congress,* Indian Highways, IRC, pp.39-46, Vol. 39 (1), January 2011.
13. Srinivasa Kumar, **A Review on Structural Evaluation of Unbound Granular And Subgrade Layers of Pavement Using DCP,** *Journal of Indian Roads Congress,* Indian Highways, pp.13-20, April 2011 .
14. Srinivasa Kumar, **Public Private Partnerships for Development of Road Infrastructure in India,** *Journal of Indian Roads Congress,* Indian Highways, IRC, pp.39-46, Vol. 39 (1), January 2011.
15. **Srinivasa Kumar R.,** Ajmi A. S. and Valkati B., “Comparative Study of Sub-grade Soil Strength Estimation Models Developed based on CBR, DCP and FWD Test Results”, *International Advanced Research Journal in Science, Engineering and Technology,* Vol.2 (8), DOI, 10.17148, pp.92-102, Impact factor 1.918. ISSN: 2394-1588, August 2015. [**Impact Factor = 1.918**]
16. Morugu S. K, Valkati B. and **Srinivasa Kumar R.,** “Two-way Signal Coordination by Using Simple Progressive System for Three-Signalized Intersection”, *American International Journal of Research in Science, Technology, Engineering& Mathematics,* 15-817, pp.33-38, Vol.1 (13), pp.33-38, December 2015. ISSN:2328-3491.
17. K. Shashi Kumar, Ibrahim, **R. Srinivasa Kumar,** “Development of Delay Models for Roundabout with Heterogeneous Traffic Flow Condition”, *International JI., of Innovative Research in Science and Engineering,* Vol. 2(9), ISSN No. 2347-3207, pp.6-17, 2016.[**Impact Factor =0.998**]
18. Ibrahim and **R. Srinivasa Kumar** “Pavement Distress Condition Evaluation Using Rolling Straight Edge”, *International JI., of Innovative Research in Science and Engineering,* Vol. 5(01), ISSN No. 2347-3207, pp.258-267, 2016.[**Impact Factor =0.998**]
19. K. Chanadana, Ibrahim and **R. Srinivasa Kumar,** “Analysis of Pedestrian Level of Service on Footpath in Hyderabad,” *International JI., of Innovative Research in Science and Engineering,* Vol. 4(09), ISSN No. 2347-3207, pp.86-97, 2016.[**Impact Factor =0.998**]
20. Ibrahim, Madhu Kumar and **Srinivasa Kumar R,** Saturation Flow Model at Signalized Intersection for Non-lane based Traffic, *Int., JI. of Innovative Research in Science, Engineering and Technology,* Vol.6(1), pp.801-808, ISSN No.2319-8753, January 2017.
21. Y. V. Ravindranath, Ibrahim, **R. Srinivasa Kumar,** Ideal Transport Planning in India Post Using GPS Technology: Hyderabad, Online International Interdisciplinary

- Research Journal, Vol.7, Special Issue (02), ISSN.2249-9598, pp. 414-424, June, 2017.[**Impact Factor =3.816**]
22. Prashanth Kumar, Rohith and **R. Srinivasa Kumar**, “Anticipation Methods for Forecasting Pavement Condition Index”, Online International Interdisciplinary Research Journal, Vol.7, Special Issue (02), ISSN.2249-9598, pp. 362-368, June, 2017.[**Impact Factor = 3.816**]
 23. Bhaskar D., M. Srujan kumar and **R. Srinivasa Kumar**, “An Outlook of BRT (Bus Rapid Transit) System in Telangana”, Online International Interdisciplinary Research Journal, ISSN.2249-9598, Vol.7, Special Issue (02), pp. 210-214, June, 2017.[**Impact Factor = 3.816**]
 24. **R. Srinivasa Kumar**, “Development of Vehicle Tailpipe Emission Models Based on Road Roughness”, i-manager's Journal on Civil Engineering, Vol. 7(4), 1-7, ISSN No. 22311068, Sep-Nov, 2017.[**Impact Factor = 2.07, UGC approved Journal Sl. No. 43156**].
 25. Muthu Ram Reddy, Sindhu Chowhan L, and **Srinivasa Kumar R.**, Evaluation and Analysis of Existing Rural Roads Alignment Using DGPS, Global Journal of Engineering Science And Researches, ISSN.2348-8034, Vol.4(10), pp.242-249, October 2017.[**Impact Factor = 4.022, UGC Approved Jl. S.No.64316**]
 26. Mane SR Rohith, Ramanarayan S, and **Srinivasa Kumar R.**, “A Review Paper on Use of Bio-Enzyme”, Global Journal of Engineering Science And Researches, ISSN.2348-8034, Vol. 4(10), pp.187-194, October 2017.[**Impact Factor = 4.022, UGC Approved Jl. S.No.64316**]
 27. P.Venkatraman Reddy and **Srinivasa Kumar R.**, Optimization Techniques of Pavement Maintenance for Road Network in India Using Road Management System (RMS), Journal of Adv. Research in Dynamical & Control Systems, Vol. 10, 13-Special Issue, ISSN No. 1943023X, Oct, 2018.[**H-index 6, Scopus & UGC approved Journal Sl. No. 26301**]
 28. P. Venkatraman Reddy and **Srinivasa Kumar R.**, A Survey Report on Optimization Techniques of Pavement Maintenance in Road Network System, International Journal of Modern Engineering and Research Technology, Volume 5, Issue 1, January 2018 ISSN: 2348-8565 (Online).[**Impact Factor = 1.00, UGC approved Journal Sl. No. 43726**]
 29. M. Ram Babu, L. Sindu Chowhan and **Srinivasa Kumar R.**, Roughness Evaluation of Flexible Pavements Using Merlin and Total Station Equipment, i-manager's Journal on Civil Engineering, Vol. 8(1), 41-46,, ISSN No. 22311068, Feb, 2018. [**Impact Factor = 2.07, UGC approved Journal Sl. No. 43156**]
 30. **R Srinivasa Kumar** and Vinay Kumar K, “Evaluation of Performance of Isolated Signalized Intersections and Design of Co-ordinated System by Using Vissim Software”, International Journal of Emerging Technology and Advanced Engineering, ISSN No. 2250-2459, Vol 8(5), pp.230-237, May 2018.
 31. PVS Koteswar Rao, P. Suresh Babu and **Srinivasa Kumar R**, “A Study on Recycled Bituminous Pavement Material Using Bitumen VG-30”International Journal of Creative Research Thoughts, ISSN2320-2882, pp. 391-394, 2018.[**Impact Factor = 5.97, UGC approved Journal Sl. No. 49023(18)**]
 32. Rohith, Kumara Swamy **R. Srinivasa Kumar** and PVS Koteswar Rao, Economic Analysis of Flexible Pavement by Using Subgrade Soil Stabilized with Zycobond and

- Terrasil” International Journal of Creative Research Thoughts, ISSN2320-2882, pp. 313-317, 2018.[**Impact Factor = 5.97, UGC approved Journal Sl. No. 49023(18)**]
33. P. Vijender Reddy and **R. Srinivasa Kumar**, Structural Evaluation of Rigid Pavement Using Falling Weight Deflectometer (FWD), International Journal of Technical Innovation in Modern Engineering & Science (IJTIMES), e-ISSN: 2455-2585, Volume 4, Issue 12, December-2018.[**Impact Factor =5.22,UGC approved Journal Sl. No. 47719**]
 34. **R. Srinivasa Kumar**, P.V.S. Koteswar Rao, L. Sindu Chowhan, Development of Delay Equations At Signalized Intersections In Hyderabad, International Journal of Technical Innovation in Modern Engineering & Science (IJTIMES), e-ISSN: 2455-2585, Volume 4, Issue 12, December-2018.[**Impact Factor =5.22, UGC approved Journal Sl. No. 47719**]
 35. Tej deep Reddy and **R. Srinivasa Kumar**, A Comparative Study of Road Alignment Survey Data Measured Using Unmanned Aerial Vehicle And Total Station, International Journal of Technical Innovation in Modern Engineering & Science (IJTIMES), e-ISSN: 2455-2585, Volume 5, Issue 1, January-2019.[**Impact Factor =5.22, UGC approved Journal Sl. No. 47719**]
 36. **R. Srinivasa Kumar**, K Shashi kumar, Cherukupalli Sandeep, An Empirical Capacity Model For Roundabouts Under Heterogeneous Traffic of Hyderabad, International Journal of Technical Innovation in Modern Engineering & Science (IJTIMES), e-ISSN: 2455-2585, Volume 5, Issue 01, January-2019.[**Impact Factor =5.22, UGC approved Journal Sl. No. 47719**].
 37. **R. Srinivasa Kumar**, Kanchi Meghalatha, K Shashi kumar, Traffic Flow Simulation and Development of Delay Models at Toll Plazas, International Journal of Technical Innovation in Modern Engineering & Science (IJTIMES), e-ISSN: 2455-2585, Volume 5, Issue 2, February-2019. [**Impact Factor =5.22, UGC approved Journal Sl. No. 47719**].
 38. **R. Srinivasa Kumar**, K. Vasudha, P. V. S. Koteswar Rao and, K. Smitha, “Performance Evaluation of Toll Plazas using Queuing Theory”, i-manager's Journal on Civil Engineering, Vol. 9(2), 17-23, March-May 2019.[**Impact Factor =2.074, UGC approved Journal Sl. No. 43156**]
 39. Ramesh J and **Srinivasa Kumar R**, “Optimization Of Rural Roads Network Of Vikarabad Bus Depot Transportation Operation”, i-manager’s Journal on Civil Engineering, 9(1), 51-60,December 2018-February 2019.[**Impact Factor =2.074, UGC approved Journal Sl. No. 43156**].
 40. **Srinivasa Kumar R.**, Akshith Reddy M., Yashwanth N., Pranaya O., Anvesh Yadav E., “Development of Car - Tailpipe Fuel Emission Models Due to the Effects Road Gradient and Roughness”, *i-manager’s Journal on Civil Engineering*, Vol. 9(4),pp.29-36, September - November 2019. [**Impact Factor =2.074, UGC Approved Jl. S.No. 43156**]
 41. **Srinivasa Kumar R.**, “Role of Professional Associations in Civil Engineering Profession”, Indian Highways, Indian Roads Congress (IRC), Vol.47(9), pp.43-47, September 2019.
 42. Shashi Kumar and **Srinivasa Kumar R.**, “Development of Delay Models for Roundabouts”, Indian Highways, Indian Roads Congress (IRC), Vol.47(12), pp. 29-37, December 2019.

43. Bhaskar V and **Srinivasa Kumar R.**, “Evaluation of Design Speeds of Horizontal Curves Passing Through Low-Speed Urban”, Indian Highways, Indian Roads Congress (IRC), Vol.48(10), pp. 24-32, October 2020.
44. Monika L, Shashi Kumar K and **Srinivasa Kumar R.**, “Optimization of Roundabouts Geometric Parameters for Capacity Enhancement” Indian Highways, Indian Roads Congress (IRC), Vol.49(11), ISSN 0376-7256, pp. 18-25, November 2021.
45. Karteeka Kumar G, and **Srinivasa Kumar R.**, “Automated Identification and Extraction of Horizontal Curve Information from GIS Road Way (OSM) Maps” Indian Highways, Indian Roads Congress (IRC), Vol.49(12), ISSN 0376-7256, pp. 18-25, December 2021.
46. Hamid Noori and **Srinivasa Kumar R.**, “Driving Behavior Modeling and Evaluation of Traffic Stream Characteristics in Heterogeneous Traffic Flow Condition”, Indian Highways, Indian Roads Congress (IRC), ISSN 0376-725 (In review).

INTERNATIONAL & NATIONAL CONFERENCES

- 1 R. Srinivasa Kumar, K. S. Reddy, M. Mazumdar, C. C. Bhattacharya and B. B. Pandey. Pavement Evaluation with Impulse Loading Apparatus, International Seminar on Highway Rehabilitation and Maintenance, New Delhi, 12-13 November, 1999, p III-135 to III-148.
- 2 **Srinivasa Kumar R.**, K. S. Reddy, M. Mazumdar and B. B. Pandey. Estimation of Subgrade Moduli from DCP Tests, International Conference on Advances in Civil Engineering(ACE-2002), IIT, Kharagpur, 3-5 January, 2002.
- 3 M.Amaranatha Reddy, **Srinivasa Kumar R.**, K. S. Reddy and B. B. Pandey. Development of Falling Weight Deflectometer System for Structural Evaluation of Pavements in India, International Seminar on Sustainable Development in Road Transport, New Delhi, 8 – 9 November, 2001.
- 4 **Srinivasa Kumar R.**, K. S. Reddy, M. Mazumdar and B. B. Pandey, Estimation of In-Situ Pavement Layer Moduli Using Falling Weight Deflectometer, International Seminar, CONMAT-2003, IIT, Kharagpur, Jan, 2003.
- 5 **Srinivasa Kumar R.**, K. S. Reddy, M. Mazumdar and B. B. Pandey, Modular Ratio Analysis of Flexible Pavement Using Falling Weight Deflectometer, International Seminar, CONMAT-2003, IIT, Kharagpur, Jan, 2003.
- 6 **Srinivasa Kumar R.**, K. S. Reddy, M. Mazumdar, C. C. Bhattacharya and B. B. Pandey. Evaluation of Subgrade Strength Using Falling Weight Deflectometer And Dynamic Cone Penetrometer, National Seminar on Challenges for Road Transportation in 21st Century, Department of Civil Engineering, Thapar Institute of Engineering & Technology, Patiala, February 23 & 24th, 2001.
- 7 **Srinivasa Kumar R.**, K. S. Reddy, M. Mazumdar and B. B. Pandey. Estimation of Seasonal Variation in Pavement strength using falling Weight Deflectometer, National Seminar, ROTRAN-2002, IIT, Kharagpur, 12-13 September, 2002.

- 8 **Srinivasa Kumar R**, Ajay Kumar and Subba Rao. Fabrication of DCP For Evaluation of Subgrade Soil, National Conference on Civil Engineering Systems, Department of Civil Engineering, Osmania University, Hyderabad, 1-3 June 2006.
- 9 **Srinivasa Kumar R**, Development of E-Content in Transportation Engineering, National Conference on Civil Engineering Systems, Department of Civil Engineering, Osmania University, Hyderabad, 1-3 June 2006.
- 10 Mehrdad V. and **Srinivasa Kumar R**, “Evaluation and Design of co-ordinated Traffic signal system selected road junctions in Hyderabad”, Two-days National Conference on Recent Research Advances in Civil Engineering (RRACE-2014), CED, UCE-OU, 7-8 November 2014.
- 11 Phanivikram T. and **Srinivasa Kumar R**, “Stabilization of Black-cotton Soil Using Recron 3s Fibre”, Two-days National Conference on Recent Research Advances in Civil Engineering (RRACE-2014), CED, UCE-OU, 7-8 November 2014.
- 12 Phanivikram T., Rohith M. and **Srinivasa Kumar R**, “Stabilization of Subgrade Soil Using Flyash”, Two-days National Conference on Recent Research Advances in Civil Engineering (RRACE-2014), CED, UCE-OU, 7-8 November 2014.
- 13 Koteswara Rao P. V. S., Gopilavanya and **Srinivasa Kumar R**, “Stabilization of Black-cotton Soil Using JGRS”, Two-days National Conference on Recent Research Advances in Civil Engineering (RRACE-2014), CED, UCE-OU, 7-8 November 2014.
- 14 Phanivikram T., Venkatesh S., Murthy GVLN. and **Srinivasa Kumar R**, “Silty Soil Stabilization Using Bituminous Emulsion”, Two-days National Conference on Recent Research Advances in Civil Engineering (RRACE-2014), CED, UCE-OU, 7-8 November 2014.
- 15 Rohit M, Prashanth Kumar S. and **Srinivasa Kumar R**, “A Study of Speed Flow Relationship at a Few Selected Uncontrolled Intersections in Hyderabad City”, Two-days National Conference on Recent Research Advances in Civil Engineering (RRACE-2014), CED, UCE-OU, 7-8 November 2014
- 16 Rohith Kumar S., Rohit M and **Srinivasa Kumar R**, “Development of Service Delay Models for Urban Uncontrolled Intersection with Heterogonous Traffic Flow Condition- A Case Study ”, Two-days National Conference on Recent Research Advances in Civil Engineering (RRACE-2014), CED, UCE-OU, 7-8 November 2014.
- 17 Naresh A. and **Srinivasa Kumar R**, “A Comparative Study of Black-cotton Soil Stability with RBI Grade-81 and Lime”, Two-days National Conference on Recent Research Advances in Civil Engineering (RRACE-2014), CED, UCE-OU, 7-8 November 2014.
- 18 Eshrak and **Srinivasa Kumar R**, “Development of Parking Demand Model for Hyderabad City”, Two-days National Conference on Recent Research Advances in Civil Engineering (RRACE-2014), CED, UCE-OU, 7-8 November 2014.
- 19 **Srinivasa Kumar R** and Sachin Bhatia, “A Proposal for Prevention of Road-Accidents At-median Openings by Using Intelligent Transportation Systems”, pp.42-45, paper

- presented in All India Seminar on Road safety, organized by Association of Transport Department Technical Officers, Hyderabad, Telangana, 2015.
- 20 **Srinivasa Kumar R**, “Geometric Design Aspects of Access Control for Prevention of Road Accidents”, paper presented in All India Seminar on Road safety, organized by Association of Transport Department Technical Officers, Hyderabad, Telangana, 2015.
 - 21 Rohit M.S.R., Prashanth S. K., Anukesh C. and **Srinivasa Kumar R**, Road Safety Concerns on Outer Ring Road – Hyderabad, One Day 2nd National Conference on “Sustainable Measures for Advanced Research and Technology in Civil Engineering” SMART 2K17, pp.105-110, 22nd April 2017
 - 22 Vinay Kumar K and **Srinivasa Kumar R**, “Prediction of Pavement Condition Index from International Roughness Index using Merlin”, One Day 2nd National Conference on “Sustainable Measures for Advanced Research and Technology in Civil Engineering” SMART 2K17, 22nd April 2017
 - 23 **Srinivasa Kumar R**, Sindu Chohan L. and Chandrakanth D., “Development of models for prediction of bitumen contaminated with wax”, 3rd National Conference on “Innovative Research in Civil Engineering” NCIRCE2K17 Under TEQIP-II, ISBN No. 9789383038527, 21 January 2017.
 - 24 **Srinivasa Kumar R** and Koteswara Rao P.V., “Pavement evaluation using electronic 3-m rolling straight edge (ERSE), Proc., of 3rd National Conference on “Innovative Research in Civil Engineering” NCIRCE2K17, Organized by CED, Malla Reddy Engineering College, Dhulapally, Secunderabad, Under TEQIP-II, ISBN No. 9789383038527, pp.7-10, 21 January 2017.
 - 25 Assessment of Stopping Sight Distance on Sag Curve at Overhead Structure, 3rd National Conference on “Innovative Research in Civil Engineering” NCIRCE2K17 Under TEQIP-II, ISBN No. 9789383038527, 21 January 2017.
 - 26 Bharath Naik and **Srinivasa Kumar R**, “A Review on Flexural Performance of Recycled Aggregate Admixed with GGBS, Flyash and Fiber”, Two-day National Conference on Recent Trends in Structural Engineering, organized by CED, Methodist College of Engineering & Technology, Abids, Hyderabad during 6-7 Oct 2017.
 - 27 Rohih Mane SR, N Kumara Swamy, **Srinivasa Kumar R** and PVS Koteswar Rao, “Economic Analysis of Flexible Pavement by Using Subgrade Soil Stabilized with Zycobond and Terrasil”, 1st National Conference on Trends in Science, Engineering and Technology, ISBN 97881-936274-0-2, Matrusri Eng College, Saidabad, Hyderabad, pp.34-38, during 2-3 Feb 2018.
 - 28 PVS Koteswar Rao, S. nagabhushanam and **Srinivasa Kumar R**, “A study on Recycled Bituminous Pavement Materials Using Bitumen VG-30 Economic”, 1st National Conference on Trends in Science, Engineering and Technology, ISBN 97881-936274-0-2, Matrusri Eng College, Saidabad, Hyderabad, pp.16-19, during 2-3 Feb 2018.

Road Safety Expert Committee Member

1. Telangana State Government selected as Expert Committee Member for investigation of Road Accidents occurred on Bio-diversity Park Flyover Level-II in Gachobowli, Hyderabad and report on remedial measures, December 2019.



Views showing the falling car from the Biodiversity flyover level-II

2. Uttar Pradesh State Government invited for providing suggestions to strengthen the subordinate policy framework (UP MV Rules) as per the provisions of the Motor Vehicles (Amendment) Act 2019. Particularly,

(i) With reference to the 210 D of Motor Vehicle (Amendment) Act 2019

(ii) With reference to the Sub-section 1A of 138 of Motor Vehicle (Amendment) Act 2019

The above meeting was held on 10-02-2021 in Lucknow, UP.

3. Working as State Quality Monitor (SQM) as a part of 2nd Tier Quality Monitoring Mechanism & inspection of PMGSY works under Telangana State Rural Roads Development Agency (TS-RRDA), Hyderabad. Dt. 16-03-2021.

4. Recently Empaneled as National Quality Monitor (NQM) by National Rural Infrastructure Development Agency (NIRDA), New Delhi on recommendation of 26th Section Committee.

CONSULTANCY SERVICES

Participated in various consultancy works at IIT, Kharagpur, as Research Scholar, during 10th march 1997 to 10th August 2001 (4½ Years). Following are the specific examples.

(a) Roughness Survey using Fifth Wheel Bump Integrator and Axle Load survey on NH5 and NH60 conducted by the Transportation Engineering Section of the Civil Engineering Department, IIT, Kharagpur for M/S Sheladia/PBI/MRC during May-August 1999.

(b) Axle Load Survey on NH-41 in West Bengal for PWD, West Bengal in May 2000.

(c) Roughness Survey using Fifth Wheel Bump Integrator on NH-6 conducted for ICT Ltd, New Delhi in July 1999

(d) As part of a research project by the Ministry of Surface Transport (R-56) I have been conducting various NDT based tests on some pavement sections of NH60, NH6 and other roads. Details of consultancy services & name of offering agency through the Institution.

1. Worked as a member of State Technical Authority (STA) for the Pradhan Manthri Gram Sadak Yojana (PMGSY), Rural Roads Project at BHU, Varanasi, UP, India.

2. Proof checking & vetting of pavement design related to rehabilitation and upgradation of four laning of Jharpokharia – Baripada _ Baleshwar section of NH-5 (Km 0.000 to Km 80.600) in the State of Odisha under NHDP Phase IV.
3. Proof checking & vetting of pavement design related to section of Bituminous Road pertaining to Guru Ghasidas Vishwavidyalaya (GGV), Bilaspur. letter No. 859/PM/UPRNN/HYD/GGV/2017, dated on 03rd December 2017.
4. Consultancy work for conducting surveys, designs and preparation of quantity estimates with drawing for BIACL- Development of Green field no frills Airport at Dagadarthi – in Nellore – Detailed Estimate for Approach road to a length of 1.8m for Dagadarthi Airport. No. Lr. 118/BIACL/DGD/2017, dt.09.10.2017.
5. Recarpeting / Strengthening of a few selected Road stretches in Hyderabad, Estimated cost of the Road construction work = Rs. 80 Lakh, for carryout of the QA/QC works ≈ 2 months, GHMC, Hyderabad.
6. Design of section of Concrete Road pertaining to Guru Ghasidas Vishwavidyalaya (GGV) Works at Bilaspur (CG), letter No. 721/PM/UPRNN/HYD/GGV works, Bilaspur (CG)/2017, dated on 14-09- 2017. Rs. 14,160/-
7. Proof checking & vetting of pavement design related to rehabilitation and upgradation of four laning of Jharpokharia – Baripada _ Baleshwar section of NH-5 (Km 0.000 to Km 80.600) in the State of Odisha under NHDP Phase IV. Rs. 29,500/- (For M/S. SHELADIA Associates, Inc., Secunderabad, Lr. Dt. 26-09-2017)
8. Design of section of Bituminous Road pertaining to Guru Ghasidas Vishwavidyalaya (GGV), Bilaspur. letter No. 859/PM/UPRNN/HYD/GGV/2017, dated on 03rd December 2017. Rs. 14,160/-
9. Proof checking & vetting of pavement design related to section of Bituminous Road pertaining to Guru Ghasidas Vishwavidyalaya (GGV), Bilaspur. letter No. 888/PM/UPRNN/HYD/GGV works, Bilaspur (CG)/2017, dated on 14th December 2017. Rs. 14,160/-
10. DPR: Consultancy work for conducting surveys, designs and preparation of quantity estimates with drawing for BIACL- Development of Green field no frills Airport at Dagadarthi – in Nellore – Detailed Estimate for Approach road to a length of 1.8m for Dagadarthi Airport. No. Lr. 118/BIACL/DGD/2017, dt.09.10.2017. Rs. 3.35Lakh.
11. Land of 5-Acre survey conducted in OU Campus for a proposed building “Center for Excellence Training & Development”- An Alumni Initiate, w.r.t. a letter dated 12-04-2018.
12. Expert Technical Committee Member for review and recommend Safety Aspects of Bio-diversity Second Level Fly-Over, Gachibowli, Hyderabad. (Date of Constitution of the Committee by the Greater Hyderabad Municipal Corporation, GHMC: 25-11-2019.
13. Proof Check & Vetting of road projects
14. Conducted and Preparation of Traffic Impact Assessment projects.

INVITED GUEST-LECTURES

1. A lecture delivered at Engineering Staff College of India, ESCI, Hyderabad, during a training program on “ NDT for Highway Maintenance Management” scheduled during 27th to 29th April 2004.

2. Six lectures delivered during two training programs for the Junior Engineers of Rural Engineering Services Department, Govt. of Uttar Pradesh, on “Quality Adherence in Construction of Rural Roads” organized by CED, IT-BHU, Varanasi, UP, during 26th to 28th August 2004 and 28th to 30th October 2004.
3. A lecture delivered at Institution of Engineers (I), AP, State Centre, Khairatabad, Hyderabad, titled, “Structural Evaluation of Pavements Using NDT Equipments” scheduled on 7th July 2005.
4. A lecture titled, *Material Characterization*, delivered in a training program titled, Rigid Pavements & Overlays – Design, Construction and Maintenance, conducted by Engineering Staff College of India (ESCI), Gachi Bowli, Hyderabad, on 23rd November 2006.
5. Three lectures titled, (i) *Overview on Rural Roads and PMGSY*, (ii) *Road Geometrics and (iii) Material Characterization*, delivered in a training program titled, Construction and Maintenance of Rural Roads, conducted by Engineering Staff College of India (ESCI), Gachi Bowli, Hyderabad, on 25-29 August 2008.
6. Two lectures titled, (i) *Serviceability Concept* and (ii) *Implementation of Pavement Management System (PMS)*, delivered in a training program titled, Pavement Management System, conducted by Engineering Staff College of India (ESCI), Gachi Bowli, Hyderabad, on 8th to 12th September, 2008.
7. Three lectures titled, (i) *Overview on Rural Roads and PMGSY*, (ii) *Road Geometrics and (iii) Material Characterization*, delivered in a training program titled, Construction and Maintenance of Rural Roads, conducted by Engineering Staff College of India (ESCI), Gachi Bowli, Hyderabad, on 3rd to 4th February 2009.
8. Two lectures titled, (i) *Overview on Quality Control in Road Construction* and (ii) *Quality of Design in Rigid and Flexible Pavements- Critical Factors*, delivered in a training program titled, Quality Control in Road Construction, conducted by Engineering Staff College of India (ESCI), Gachi Bowli, Hyderabad, on 21st to 23rd July, 2009.
9. Three lectures titled, (i) *Pavement Evaluation Methods* (ii) *Serviceability Concept*, and (iii) *Implementation of PMS*, delivered in a training program titled, Pavement Management Systems, conducted by Engineering Staff College of India (ESCI), Gachi Bowli, Hyderabad, 1- 5 September, 2009.
10. Two lectures titled, (i) *Rigid Pavement Analysis and Design Concepts* and (ii) *Material Characterization*, delivered in a training program titled, Construction and Maintenance of Concrete Roads, conducted by Engineering Staff College of India (ESCI), Gachibowli, Hyderabad, on 2-6 November, 2009.
11. Three lectures titled, (i) *Design and Construction of Cement Concrete Pavement as per IRC 58 & IRC – 15* (ii) *Material Characteristics*, and (iii) *Failures / Cracks to Cement Concrete Roads (Causes & Its Remedial Measures)*, delivered in a training program titled, Construction & Maintenance of Concrete Roads for the Engineers of Rural Works Department Bhubaneswar, Orissa, 02 – 04 February, 2010, conducted by Engineering Staff College of India (ESCI), Gachibowli, Hyderabad.
12. A lecture titled, *Quality of Design in Rigid and Flexible Pavements – Critical Factors*, delivered in a training program titled, Quality Control in Road Construction” from 09 – 11 February, 2010, at ESCI Campus, Gachibowli, Hyderabad.
13. A keynote lecture titled, *Structural Evaluation of Flexible Pavements and Rigid Pavements*, delivered in a National Workshop titled, Recent Advances in Pavement

- Engineering, RAPAVE 2010, from 26 – 27 March, 2010, at Department of Civil Engineering, M. V. S. R. Engineering College, Nadargul, Hyderabad.
14. Three lectures titled, (i) Design and Construction of Cement Concrete Pavement as per IRC 58, IRC 15 and IRC-SP 62 (ii) *Material Characteristics*, and (iii) Maintenance of Cement Concrete Roads (Causes & Its Remedial Measures), delivered in a training program titled, Construction & Maintenance of Concrete Roads for the Engineers of Rural Works Department Bhubaneswar-II Batch, Orissa, 06 – 08 April, 2010, conducted by Engineering Staff College of India (ESCI), Gachibowli, Hyderabad.
 15. A lecture titled, *Quality of Design - Critical Factors in Rigid and Flexible Pavement*, Continuing Professional Development Programme on “Quality Assurance & Quality Control in Road Construction” from 14 – 16 July, 2010 at ESCI Campus, Gachibowli, Hyderabad.
 16. Four lectures titled, (i) *Material Characterization* and (ii) *Flexible Pavement Analysis & Overlays-Design Concepts*, (iii) *Pavement Maintenance and Preservation Techniques and (iv) QA & QC in Pavement Construction*, delivered in a training program titled, Flexible Pavement and Overlays-Design, Construction and Maintenance, organized by Engineering Staff College of India (ESCI), Gachibowli, Hyderabad, during 06-09 December, 2010.
 17. A lecture titled, *Quality of Design - Critical Factors in Rigid and Flexible Pavement*, Continuing Professional Development Programme on “Quality Assurance and Quality Control in Road Construction” from 27 – 29 January, 2011 at ESCI Campus, Gachibowli, Hyderabad.
 18. Two lectures titled, (i) *Material Characterization QAQC Test Procedures - I (IS Codes & Specifications)* and (ii) *QAQC Test Procedures - II (IS Codes & Specifications)*, delivered in a training program titled, Testing of Civil Engineering Materials – Latest Techniques" at ESCI Campus, Gachibowli, Hyderabad, from 17 – 19 August, 2011.
 19. Three lectures titled, (i) Ground Investigation (ii) *Engineering Properties of Soil*, and (iii) Soil Stabilization, delivered in a training program titled, Soil Investigation & Ground Improvement Techniques in Infrastructure Development for the Engineers of Rural Works Department, Bhubaneswar, Batch-I, 05 – 07 September, 2010, conducted by Engineering Staff College of India (ESCI), Gachibowli, Hyderabad.
 20. Three lectures titled, (i) Soil Stabilization (ii) *Engineering Properties of Soil*, and (iii) Ground Investigation, delivered in a training program titled, Soil Investigation & Ground Improvement Techniques in Infrastructure Development for the Engineers of Rural Works Department, Bhubaneswar, Batch-II, 08 – 10 September, 2010, conducted by Engineering Staff College of India (ESCI), Gachibowli, Hyderabad.
 21. A lecture titled, *Material Characterization & Quality Application* in a training program titled, “Quality Assurance & Quality Control in Civil Engineering Construction Projects” from 21 – 24 November, 2011 at ESCI Campus, Gachibowli, Hyderabad
 22. Three lectures titled, (i) *Rigid Pavement & Overlays - Analysis & Design Concepts* (ii) *CC Mix Design and QC in Pavement Construction and (iii)CC Mix Design and QC in Pavement Construction*, in a training program titled, Construction and Maintenance of Concrete Roads” from 12 – 15 December, 2011 at ESCI Campus, Gachibowli, Hyderabad.
 23. Two lectures titled, (i) *Quality Control Tests in Road Construction Process and (ii) Quality of Design – Critical Factors in Rigid and Flexible Pavements*, in a training

- program titled, “Quality Assurance and Quality Control in Road Construction” from 19 – 21 December, 2011 at ESCI Campus, Gachibowli, Hyderabad.
24. A lecture titled, *Applications of Flyash in Construction Industry* in a training program titled, Use of Fly Ash in Civil Engineering Works, conducted from 23 – 25 January, 2012, at Engineering Staff College of India (ESCI), Gachibowli, Hyderabad.
 25. A lecture titled, *Interference of CBR and Curve Setting in Laying of Roads* in a training program titled, Integrated Participative Decentralized Planning for PR Engineers from 26th to 28th September, 2012 at AMR-APARD, Rajendranagar, Hyderabad.
 26. A lecture titled, *Soil Stabilization* in a training program titled, Use of Fly Ash in Civil Engineering Works, on 8-7-2014, at Engineering Staff College of India (ESCI), Gachibowli, Hyderabad.
 27. A lecture titled, *Road Safety Audit* in a training program conducted by Engineering Staff College of India (ESCI), Gachibowli, Hyderabad on Road Accident Investigation - Sponsored by The Ministry of Road Transport & Highways (Road Transport Division), Government of India, New Delhi from 15 – 19 September, 2014.
 28. One-day workshop conducted on 12th September 2014 on topic:-Traffic Engineering, at Anurag Engineering College, Kodad, telegana district.
 29. Two lectures titled, (i) *Quality Control Tests in Road Construction Process* and (ii) *Quality of Design – Critical Factors in Rigid and Flexible Pavements*, in a training program titled, “Quality Assurance and Quality Control in Road Construction” from 19 – 21 December, 2011 at ESCI Campus, Gachibowli, Hyderabad.
 30. A lecture titled, *Applications of Flyash in Construction Industry* in a training program titled, Use of Fly Ash in Civil Engineering Works, conducted from 23 – 25 January, 2012, at Engineering Staff College of India (ESCI), Gachibowli, Hyderabad.
 31. A lecture titled, *Interference of CBR and Curve Setting in Laying of Roads* in a training program titled, Integrated Participative Decentralized Planning for PR Engineers from 26th to 28th September, 2012 at AMR-APARD, Rajendranagar, Hyderabad.
 32. A lecture titled, *Soil Stabilization* in a training program titled, Use of Fly Ash in Civil Engineering Works, on 8-7-2014, at Engineering Staff College of India (ESCI), Gachibowli, Hyderabad.
 33. A lecture titled, *Road Safety Audit* in a training program conducted by Engineering Staff College of India (ESCI), Gachibowli, Hyderabad on Road Accident Investigation - Sponsored by The Ministry of Road Transport & Highways (Road Transport Division), Government of India, New Delhi from 15 – 19 September, 2014.
 34. One-day workshop conducted on 12th September 2014 on topic:-Traffic Engineering, at Anurag Engineering College, Kodad, telegana district.
 35. A lecture titled, Soil Stabilization, Engineering Staff College of India, ESCI, Gachi Bowli, Hyd., 23rd September 2016
 36. Thirteen different topics related to Advanced ITS, Dept of Civil Engineering, College of Engineering , Bharathi Vidyapeeth, Pune, 06-08 October 2016.
 37. A lecture titled, Intelligent Transportation System, Engineering Staff College of India, ESCI, Gachi Bowli, Hyd. 13th January 2017.
 38. Four lectures titled, Characterization of Flexible Pavement Materials, Design of Flexible pavement as per IRC:SP:72-2015, Pavement Evaluation and Maintenance and Marshall Mix Design of Bituminous Mixes Engineering; Staff College of India, ESCI, Gachi Bowli, Hyd., 06-09 December 2016.

39. A lecture titled, Design Issues of Flexible and Rigid Pavements, Engineering Staff College of India, ESCI, Gachi Bowli, Hyd., 22nd February 2017
40. A lecture titled, Preservation Techniques, Engineering Staff College of India, ESCI, Gachi Bowli, Hyd., 24nd February 2017
41. Three lectures titled, Material Characterization, Pavement Design and Maintenance & Preservation Techniques for Rigid Pavements, Utter Pradesh Rajikiya Nirman Nigam Ltd., UPRNN, 8-9 April 2017.

Year	Title of the Invited Guest Lecture	Conducted by Institute/Agency at Place
2014	Soil Stabilization	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2014	Characterization of materials	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2014	Road Safety Audit	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2014	Transportation Engineering	Anurag Engineering College, Kodad, Nalgonda District-508206
2014	Road Safety Management	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2014	Road Safety Inspection	
2014	Road Safety Audit	
2014	Material Characterization & Quality Application	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2014	Pavement Evaluation	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2014	Flexible Pavements and Overlay Design	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2014	Pavement Evaluation and Maintenance Methods	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2015	Overview of Use of Fly Ash in Road Projects	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2015	Pavement Evaluation Methods	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2015	Implementation of PMS	
2015	Pavement failures and causes and remedial measures	
2015	1. Pavement Material Characterization 2. Maintenance & Preservation Techniques for Rigid Pavements	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2015	Standard Specifications and Code of	Engineering Staff College of

	Practice for Road Bridges, Section-II Load and Stresses	India, Gachibowli, Hyderabad-500032
2015	Pavement Material Characterization and Quality Application	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2015	1. Soil Stabilization Using Fly Ash 2. Uses of Fly Ash, Applications of Fly Ash in Construction Industry	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2015	1. Soil Characterization and Classification 2. Soil Stabilization	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2015	Intelligent Transportation System	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2015	Design and Maintenance Methods for Flexible Pavements	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2016	Traffic Signs and Markings	Road Safety Management, The Ministry of Road Transport and Highways, New Delhi at Guwahati.
2016	Intelligent Transportation System	Road Safety Management, The Ministry of Road Transport and Highways, New Delhi at Guwahati
2016	Road Safety Audit	Road Safety Management, The Ministry of Road Transport and Highways, New Delhi at Guwahati
2016	1. Road Engineering Measures for Improving Road Safety 2. Signs and Markings for Road Safety	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2016	1. Road Safety Audit 2. Intelligent Transportation System for Road Safety	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2016	1. Drainage Design Parameters 2. Design of Rigid pavement as per IRC:58, 2015	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2016	State of the Art Practices for the Pavement Evaluation and Rehabilitation	Key note lecture delivered at 5-day STTP, SV-NIT Surath-395007
2016	Use of Fly Ash for Manufacturing of Bricks and Paving tiles/blocks	Engineering Staff College of India, Gachibowli, Hyderabad-500032
2016	Road Materials and Testing in Transportation Engineering	Department of Civil Engineering, Mall Reddy Engineering College,

		Maisammaguda, Dhulapally, Secunderabad-500100
2016	Overview on Land Surveying	Dept of Civil Engg, Aurora's Scientific, Technological and Research Academy, Bandlaguda, Hyderabad-05
2016	Soil Stabilization	Engineering Staff College of India, Gachi Bowli, Hyd.
2016	Thirteen different topics related to Advanced ITS	Dept of Civil Engineering, College of Engineering, Bharathi Vidyapeeth, Pune, MH
2016	1. Characterization of Flexible Pavement Materials 2. Design of Flexible pavement as per IRC:SP:72-2015 3. Pavement Evaluation and Maintenance 4. Marshall Mix Design of Bituminous Mixes	Engineering Staff College of India, Gachi Bowli, Hyd
2017	Intelligent Transportation System	Engineering Staff College of India, Gachi Bowli, Hyd.
2017	Design Issues of Flexible and Rigid Pavements	Engineering Staff College of India, Gachi Bowli, Hyd
2017	Preservation Techniques	Engineering Staff College of India, Gachi Bowli, Hyd
2017	Road Engineering Measures for Improving Road Safety	Engineering Staff College of India, Gachi Bowli, Hyd
2017	Material Characterization Rigid Pavement Design	Engineering Staff College of India, Gachi Bowli, Hyd
2017	Maintenance & Preservation Techniques for Rigid Pavements	Engineering Staff College of India, Gachi Bowli, Hyd
2017	1. Material Characterization 2. Pavement Design 3. Maintenance & Preservation Techniques for Rigid Pavements	Utter Pradesh Rajikiya Nirman Nigam Ltd., UPRNN, Lucknow, UP
2017	Use of Fly ash, Application of Fly ash in Construction Industry	Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
2017	Characterization of Materials-Soil and Aggregates	Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
2017	Soil Stabilization Using Foamed Bitumen	Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
2017	Road Assurance & Quality Control in Road Construction	Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
2017	Road Geometry and its Importance, Alignments, Capacities-Design parameters	Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
2017	1. Pavement Materials Characterization	Engineering Staff College of

	including Bituminous Mixes 2. Design of flexible Pavements & Overlay as per IRC:SP:72-2015	India, ESCI, Gachi Bowli, Hyd.,
2017	Methods of Road Testing & Overlay Design	Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
2018	Importance of Road Geometry- Causative Factors for Accidents	Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
2018	Road Engineering Measures to Improve Road Safety	Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
2018	Pavement Management Process-Design Standards	Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
2018	Intervention criteria and Alternate Strategies	Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
2018	Material Characterization	Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
Feb 2018	Preservation Techniques	Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
September 2018	Soil Stabilization	Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
	Soil Stabilizations and Ground Improvement Techniques in Infrastructure Development	
December 2018	Salient Features and Principles for Safe Road Design as per IRC:SP:88	Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
	Road Safety Audit: Sponsored by The Ministry of Road Transport and Highways (Transport Wing), Government of India, New Delhi.	
December 2018	1. Design Principles of Flexible pavement for Rural Roads 2. Design Principles of Flexible pavement for Rural Roads	Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
	Preparation of DPR's (Cost-estimates) for Rural Roads, Government of Telangana	
January 2019	Engineering Measures by ITS	Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
	Road Transport Regulation & Administration: Sponsored by The Ministry of Road Transport and Highways (Transport Wing), Government of India, New Delhi.	
February 2019	Principles of Traffic Management and ITS	Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
	Traffic Management and ITS: Sponsored by The Ministry of Road Transport and Highways (Transport Wing), Government of India, New Delhi.	
February	1. Overview of Accidents Scenario	In Kochi,

2019	2. Crash Data Collection 3. Forensic Investigation of Crashes 4. Statistical Analysis of Crash data and Road Network 5. Report Preparation and Identification of Mitigation Measures	By Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
	Road Crash Data Analysis and Investigation: Sponsored by The Ministry of Road Transport and Highways (Transport Wing), Government of India, New Delhi.	
March 2019	1. Design Aspects & Importance of Road Geometry 2. Measures to Improve Road Safety (Road factors, vehicle user factor)	Engineering Staff College of India, ESCI, Gachi Bowli, Hyd.,
	Road Safety Management: Sponsored by The Ministry of Road Transport and Highways (Transport Wing), Government of India, New Delhi.	
28.10.2020	Feasibility Study on Traffic Survey, Geometric Design Standards & Alignment Design in preparation of project report	Engineering Staff College of India, (ESCI), Hyderabad
02-03-2021	1. Pavement Maintenance Management Systems and Road Asset Inventory 2. Pavement Condition Survey Using Network Survey Vehicle/Automated Road Survey System	Online Short Term Course on "Data Collection and Analytics in Pavement Management Systems", IIT (BHU), Varanasi, UP.
05-05- 2022	Recent Advancement in Pavement Design	AICTE-QIP sponsored online short term course on "Advances in Transportation Infrastructure Engineering" conducted by the Department of Civil Engineering , IIT Indore, from 02nd to 07th May 2022

Other Information:

Courses Developed: Computer Applications & Design in Transportation Engineering; Computer programs were developed for Orientation of Runway and design of Rigid and Flexible pavements based on IRC:58, FAA, GI and CBR method.

Laboratories Handled: Transportation Engineering lab & Surveying Lab

CEC-UGC RESEARCH PROJECT

One project funded by Consortium of Educational Communication of University Grants Commission (UGC), New Delhi.

Title of the project: E-Content Development in Transportation Engineering.

Duration: One Year (2005-06)

A Pilot Project has been completed on 02-08-2006.

ATTENDED WORKSHOPS & SHORT-TERM COURSES

1. A short-term course on “*Geo-Informatics for Urban and Rural Mapping*” conducted by Indian Institute of Surveying & Mapping, Survey of India, Hyderabad, during 3rd January to 13th January 2011.
2. Orientation Workshop on E-Content Proposal Development, held at Consortium for Educational Communication (CEC), an Inter University Centre of University Grants Commission on Electronic Media, New Delhi, from 13th to 15th December 2004.
3. A short-term course on “Object Oriented Programming with C++ & VC++” offered by IIT, Kharagpur, during 22nd May to 9th June 2000.
4. A short-term course on “Advanced IT Applications to Civil Engineering” offered by IIT, Kharagpur, during 4th to 15th December 2000.
5. A short-term course on “C A Comprehensive Exposure” offered by IIT, Kharagpur, during 9th June to 15th July 1998.
6. Three Week SERC School on “GPS Applications and Atmospheric Constraints” Organized by Research & Training Unit for Navigational Electronic, OU, 13th June- 3rd July, 2012.
7. Three Week SERC School on “GPS Applications and Atmospheric Constraints” Organized by Research & Training Unit for Navigational Electronic, OU, 13th June- 3rd July, 2012.
8. Three-Days Training Program on “ Land Surveying Using GPS, Auto-level and Total Station, conducted during 1-3 July, 2015, by the Dept., of Civil Eng., UCE, Osmania University, Hyderabad.
9. Engineering Graphics Using AUTOCAD, Dept of Civil Engineering, UCE, Osmania University, Hyd, 9th October 2015, Under TEQIP-II.
10. Two-days Workshop on Design, Construction, Evaluation and Maintenance of Cement Concrete Pavements, 21-22, October 2016, in the Department of Civil Engineering, University College of Engineering, Osmania University, Hyderabad.
11. One day workshop on “Finite Element Methods”, CED, OUC, OU, 30th July 2016.
12. Two day workshop on “Structural Health Monitoring and Condition Assessment of Existing Structures”, 20-21, CED, OUC, OU, January, 2017.
13. Two-days National Conference on Recent Research Advances in Civil Engineering (RRACE-2014), CED, UCE-OU, 7-8 November 2014.
14. 1st International Conference on Innovations in Engineering and Technology, ICRIET-2016, Organized by Aurora’s Scientific, Technological and Research Academy, Hyderabad
15. Two-days Workshop on Design, Construction, Evaluation and Maintenance of Cement Concrete Pavements, 21-22, October 2016, in the Department of Civil Engineering, University College of Engineering, Osmania University, Hyderabad.
16. Two-day Workshop on Teaching, Learning and Assessment Methodologies, UCE, OU during 13-14 Dec 2016.
17. Three-day Training Program on Ground Penetration Radar (GPR) Applications, in JNTUH, during 28-30 Dec 2017.

18. One-day National Workshop on Repair and Rehabilitation of structures, Dept of Civil Eng, OU, 28th Feb 2018.
19. Three-day 2nd International Conference on Innovations in Structural Engineering, Organized by the CED, UCE-OU, Hyderabad, 29-31 Dec 2017.
20. Traffic Problems in & around Hyderabad and Remedial Measures”, 15th June 2018.

CONDUCTED TRAINING PROGRAMS

As Co-ordinator and also Delivered a few lectures:

1. Three-day training program for the Junior Engineers of Rural Engineering Services Department, Govt. of U.P., on the topic “Quality Adherence in Construction of Rural Roads” from 26th to 28th August 2004, organized by the Department of Civil Engineering, Institute of Technology, Banaras Hindu University (BHU), Varanasi, UP.
2. Three-day training program for the Junior Engineers of Rural Engineering Services Department, Govt. of U.P., on the topic “Quality Adherence in Construction of Rural Roads” from 28th to 30th October 2004 organized by the Department of Civil Engineering, Institute of Technology, Banaras Hindu University (BHU), Varanasi, UP.
3. Organized a 2-Day Training Program on Recent Advances in Highway and Traffic Engineering, during 20-21, March-2009, Department of Civil Engineering, University College of Engineering, Osmania University, Hyderabad.
4. Three-Days Training Program on “ Land Surveying Using GPS, Auto-level and Total Station, conducted during 1-3 July, 2015, by the Dept., of Civil Eng., UCE, Osmania University, Hyderabad
5. Two-day Workshop/ Training Program on “Design, Construction, Evaluation and Maintenance of Cement Concrete Pavements” 21-22 October 2016, TEQIP-II. Department of Civil Engineering, University College of Engineering, Osmania University, Hyderabad.
6. Coordinator, Three-Days Training Program on “ GNSS Technologies and Its Applications”, conducted during 20-22 October, 2017, by the Dept., of Civil Eng., and NERTU, UCE, Osmania University, Hyderabad
7. Convener, “Traffic Problems in & around Hyderabad and Remedial Measures”, 15th June 2018.

PROJECTS GUIDED Master of Engineering (Transportation Engineering)

Sl. No.	Student Name	Title of M.E. Thesis
1	M. Shreevani	Economical Analysis of State Highway-1 Using HDM-4
2	Abdul Muqtadir	Applications Of Ground Penetrating Radar In Pavement Engineering
3	V. Anusha	Pavement Management system for state Highway-2 (Narketpally-Addanki), A Case Study
4	V. Bhasker	A Study on Geometric Design Parameters of Low-Speed Horizontal Road-Curves
5	D. Pruthvi Raj	Development of a Methodology for New Alignment Proposals of Rural Road Network Using PPK DGPS Technique: A Case Study

6	P. Muthuram Reddy	Evaluation and Analysis of Existing Rural Roads Alignment Using DGPS
7	Y. Gopi Lavanya	Design of Flexible Pavement by Replacing the Base Layers Stabilized with Jindal Global Road Stabilizer-A Case Study
8	K. Ajay Kumar	Traffic Growth Parametric Study for Hyderabad & Outer Ring Road (ORR)- A Case Study
9	Mehrdad Vakilzadehanaraki	Evaluation and Design of Coordinated Traffic Signal System for Selected Road Junctions In Hyderabad
10	Samiulhaq	Stabilization of Black Cotton Soil using Fly ash and Lime
11	Haritha N.	Assessment of Stopping Sight Distance on Sag Curve at Overhead Structure
12	Rama Rao H.	Evaluation of Geometric Design Inconsistencies in Sag Vertical Curves
13	Venkatesh S.	Silty-Soil Stabilization Using Bituminous Emulsion
14	M. Rambabu	Roughness Evaluation of Flexible Pavements using Merlin & Total Station Equipment
15	C. Narayana	A Study on Development of Parking Demand Model for High Court Premises – A Case Study
16	P. Suresh Babu	A Study on Recycled Bituminous Pavement Materials using VG-30
17	T. Phani Vikram	Stabilization of Black Cotton soil using RECORN 3S Fiber
18	Md. Ibrahim	Pavement Distress Condition Evaluation Using Rolling Straight Edge
19	K. Madhu Kumar	Saturation Flow Model at Signalized Intersection for Non-lane based Traffic
20	M. Srujan Kumar	Two-way Signal Coordination Using Simple Progressive System for a Three Signalized Junctions in Secunderabad
21	M. S. R. Rohith	Determination of Capacity at Unsignalized Intersections Under Mixed Traffic Flow Condition
22	Eshrak	A Study on Urban Parking Problems and Parking Demand
23	K. Shashi Kumar	Development of Delay Models for Roundabout with Heterogeneous Traffic Flow Condition
24	K. Chandana	Estimation of Pedestrian Level of Service on Selected Streets of Footpath in Hyderabad City

RECENT

Sl. No.	Student Name	Roll No.	Date	Title of M.E. Thesis
1	Y. V. Ravindranath	1005-13-746412	01-11-2016	Optimal Transport Planning in India Post Using GPS Technology: A Case Study
2	S. Nagabhushanam	1005-13-746410	01-11-2016	Study on Properties of dense Bituminous Macadam Mix Using Steel Slag by Partial Replacement of Aggregates
3	Lal Vishal	1005-14-741409	24-01-2017	Corridor Management Using Service Level Benchmarks (LB Nagar Ring Road to Uppal Ring Road)
4	J. Ramesh	1005-13-	30-01-2017	Optimization of Rural Roads Network for

		746403		Public Transportation Operation: A Case Study
5	R. Chandrakanth	1005-15-741517	23-12-2017	Traffic Signal Coordination by Using VISSIM Software for Three Signalized Junctions at RTC X-Roads
6	K. Vinay Kumar	1005-15-741413	01-03-2018	Prediction of Pavement Condition Index by International Roughness Index Using MERLIN and 3-M Rolling Straight Edge Equipment
7	N. Kumara Swamy	1005-15-741409	04-04-2018	Stabilization of Black Cotton Soils Using Terrasil and Zycobond
8	C. Tej Deep Reddy	1005-15-746408	26-11-2018	Comparison of Road Alignment Survey Data Measured by Using Unmanned Aerial Vehicles and Total Station
9	P. Vijender Reddy	1005-15-746406	05-11-2018	Structural Evaluation of Rigid Pavement Using Falling Weight Deflectometer (FWD)
10	D. Chandrakanth	1005-16-741411	05-11-2018	An Experimental Analysis and Efficacy of Bioenzyme on Red Earth and Black-cotton Soil
	K. Meghalatha	1005-16-741413	05-11-2018	Traffic Flow Simulation and Development of Delay Models at Toll Plazas
11	Ch. Sandeep	1005-16-741402	05-11-2018	An Empirical Capacity Model for Roundabouts Under Heterogeneous Traffic of Hyderabad
12	V. Priyanka	1005-14-741415	03-01-2019	Development of Delay Model and Simulation Study of Uncontrolled Median Opening Under Mixed Traffic Condition
13	Lakkaraju Mounika	1005-17-741409	Oct2019	Optimization of Roundabouts for heterogeneous traffic
14	Adouthu Ravinder Naik	1005-19-741401	Mar-2021	Road Accidents Risk Analysis by using Regression Method
15	Gaddam Sindhura	1005-19-741403	Mar-2021	Microsimulation of Traffic Modelling at Intersection using PTV Vissim
16	Hamid Noori	1005-19-741417	Dec-2021	Driving Behaviour Modelling and Evaluation of Traffic Stream Characteristics in Heterogeneous Traffic Conditions

ADMINISTRATIVE ACTIVITIES

1. Time Tables in charge, during the year 2007 to 2010.
2. Coordinated to setup Civil Engineering Department Website (Campus only) Links (Registrar's Letter No.327/UGC/OU/Web/2009, dt. 3rd July 2009).

3. CED Report prepared for Annual Quality Assurance Report (AQAR), Letter No. 109/IQAC/09, dt. 24th April 2009.
4. Departmental Committee (DC) Member from the year 2008 to 2010.
5. Incharge for “Heading Activities” of the Civil Engineering Department, Principal’s Letter No.149/UGC/Acad./UCE/2009, dt. 5th February 2009.
6. Incharge for preparing Pre-Ph.D. Candidates List with approved DRC subjects. Examination Cell letter No. 579/Wxam Cell/ UCE.OU/2008, dt.12th December 2008.
7. Coordinated first year BE (Civil) students during Orientation and after Orientation Programme, Principal’s letter No. 1506/Acad./UCE/2008, dt. 11th September, 2008.
8. Coordinated for Issue of Identity Cards-submission of student’s details and bonafied certificates by the Director, UFRO, OU, dt. 1st November 2008.
9. In-Charge for Transportation Engineering Laboratory and consultancy work Co-ordinator for the GHMC works, from dt. 26-12-2009 to 11-09-2012.
10. Incharge for “OU News Letter”, for collection, preparation and sending information of various activities of the Department during Jan – Dec 2009, to Prof. UVB Reddy, Director (Infrastructure), OU. Letter No. 111/CED/2010, dt. 30/03/2010.
11. Incharge for conducting Survey Camp for students of BE ³/₄ Civil, II-sem, from 31st March to 1st April 2010.
12. Prepared a report of Proposal requesting for appointment of new Teaching Posts in the CED, OU, as per the AICTE norms of PG and UG courses.
13. Member of Catering & Food Management Committee for 28th Central Zone Inter University Youth Festival, Yuva Tharang, from 16 to 20th November 2012.
14. Coordinator, Internal Quality Assurance Cell at UCE, OU from 9-10-2012 to 10-10-2013.
15. Stock Verified for FM Lab and PH lab w.r.f. a letter dated on 17-06-2016
16. Arranged for Internship in L&T Construction Buildings & Factories, HMR Projects, Hyderabad for 12 students in three batches, w.r.f. letters dated on 27-05-2017
17. Coordinator for the Post Graduation (PG) programs, M.E. (Transportation Engineering) from 7th October 2014 to 12 July 2018.
18. In-charge, Transportation Engineering Laboratory from 26-12-2009 to 11-09-2012.
19. In-charge, Surveying Laboratory from 18 June 2016 to 02 July 2018.
20. In-charge, Transportation Engineering Laboratory and consultancy works Co-ordinator for the GHMC and HMRL works from 30 June 2018 to 24-06-2021.
21. Additional Chief Superintendent for conducting all semesters of B.E. and MCA UCE-OU Exams, Osmania University, since 20-10- 2017.
22. Member of BOS of CED, CBIT from 29-12-2017 to till today
23. Chief Superintendent, Recruitment Test-2018 for conducting of recruitment test for 600 candidates on 11-02-2018, letter dated on 30-01-2018.
24. Chief Superintendent, Recruitment Test-2018 for conducting of recruitment test for 600 candidates on 25-02-2018, letter dated on 12-02-2018.
25. Chief Superintendent for conducting a Test on 25-02-2018.
26. Member of BOS of CED, UCE-OU from Dt.15-02-2018 to till today.
27. Supervisor, Civil Services (Preliminary) Examination-2018, conducted on 03-06-2018 for 600 number of candidates, first time in OU Campus.
28. Addl. Controller of Examinations at Exam Branch, Confidential Section, University Level, October 2019- October 2020.
29. In-charge, Surveying Laboratory from 24 June 2021 to till date.

30. Faculty Advisor of M.E.(Civil-Transportation Engineering) Regular & PTPG Programs of CED, UCE, OU.
31. National Board of Accreditation (NBA) Coordinator for M.E. (Transportation Engineering) Program of CED, UCE, OU from 24-06-2021 till today.
32. Director, Estate Cell, Osmania University, from 4th August 2021 to till date.

OTHER

1. Guest of Honor for *One Day 2nd National Conference on “Sustainable Measures for Advanced Research and Technology In Civil Engineering”* SMART 2K17 on 22nd April 2017. Organized by Nalla Narasimha Reddy Educational Society’s Group of Institutions, Integrated Campus, Medchal Dist., Hyd.
2. Chaired Two-Technical Sessions during 1st International Conference on Innovations in Engineering and Technology (ICRIET-2016) Organized by Aurora’s Scientific, Technological and Research Academy, Hyderabad-500005. Held on 22-23 December 2016
3. Judge, Paper presentation during NIRMAN-2017, CED, UCE, OU. During 10-11 March 2016.
4. Guest of Honor for *One Day 2nd National Conference on “Sustainable Measures for Advanced Research and Technology In Civil Engineering”* SMART 2K17 on 22nd April 2017. Organized by Nalla Narasimha Reddy Educational Society’s Group of Institutions, Integrated Campus, Medchal Dist., Hyd.
5. Chaired Two-Technical Sessions during 1st International Conference on Innovations in Engineering and Technology (ICRIET-2016) Organized by Aurora’s Scientific, Technological and Research Academy, Hyderabad-500005. Held on 22-23 December 2016.
6. Judge, Paper presentation during NIRMAN-2017, CED, UCE, OU. During 10-11 March 2016.
7. Paper setting for PGECET-2016 w.r.t. a letter dated 08-03-2015.
8. Paper setting for PGECET-2017 w.r.t. a letter dated 24-02-2017
9. Judge, Paper presentation during NIRMAN-2018, CED, UCE, OU. 8 March 2018.
10. Paper setter for TSPSC-AEE exam, Civil Eng, March 2018.
11. Paper setting for PGECET-2017 w.r.t. a letter dated 24-02-2017.
12. Land of 5-Acre survey conducted in OU Campus for a proposed building “Center for Excellence Training & Development”- An Alumni Initiate, w.r.t. a letter dated 12-04-2018.
13. Paper setting for PGECET-2018 w.r.t. a letter dated 15-02-2018.
14. Chief Superintendent for conducting ME/M.Tech (PTPG) Entrance Exam for the year 2018-19, w.r.t letter dated on 29-06-2018.
15. Subject Expert for Faculty Orientation Program on 6th July 2018, organized by the CED, Vignan Institute of Technology & Science, Yadadri Bhuvanagiri District, TS.
16. Interview provided with Suggestions & Observations on “Reduction of Traffic Problems on the Hyderabad Road” for a Radio Documentary work of a Masters in Journalism Thesis of The English and Foreign Languages University, Hyderabad.

LIST OF PH.D. SCHOLARS

1. Laxmana Reddy:
2. Venkatram Reddy:
3. Bhaskar, Valkati:
4. Rohith SR Mane:
5. Prashanth Soma:
6. Shashi Kumar:
7. Bharath Naik:
8. Srujan Morugu:
9. Mahesh Burri:
10. Lal Vishal:

REPORTS PREPARED

- TECHNICAL REPORT-1, Research Scheme R-81, *Structural Evaluation of Pavements In Eastern India By falling Weight Deflectometer*, Submitted to the Ministry of Surface Transport (MOST), Roads Wing, Government of India, New Delhi, by Civil Engineering Department, IIT, Kharagpur, December 1999.
 - TECHNICAL REPORT-2, Research Scheme R-81, *Structural Evaluation of Pavements In Eastern India By falling Weight Deflectometer*, Submitted to the Ministry of Surface Transport (MOST), Roads Wing, Government of India, New Delhi, by Civil Engineering Department, IIT, Kharagpur, June 2000.
- TECHNICAL REPORT-3, Research Scheme R-81, *Structural Evaluation of Pavements In Eastern India By falling Weight Deflectometer*, Submitted to the Ministry of Surface Transport (MOST), Roads Wing, Government of India, New Delhi, by Civil Engineering Department, IIT, Kharagpur, December 2000.

EQUIPMENTS FABRICATED

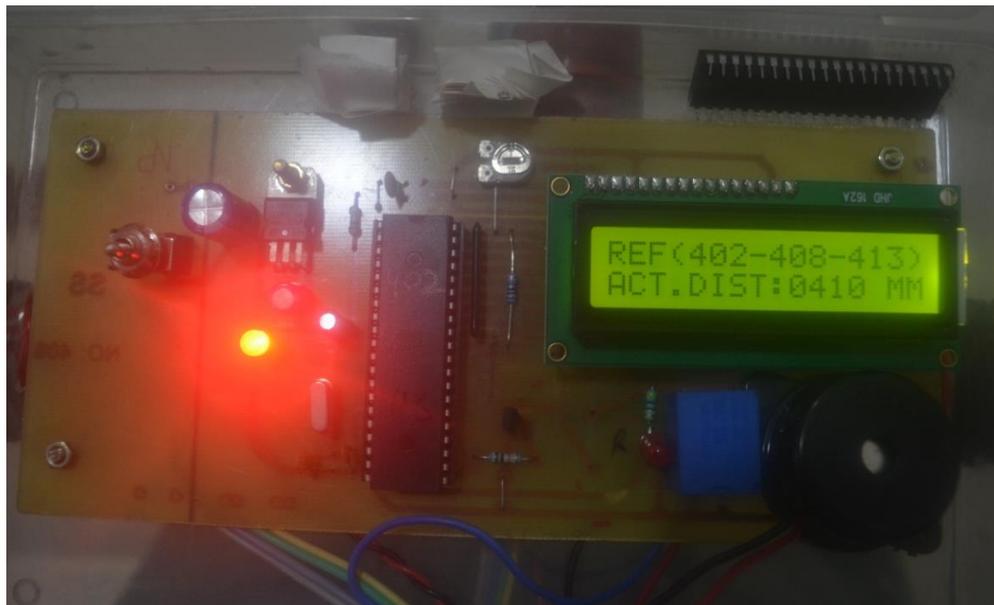




Falling Weight Deflectometer (FWD) – A Low cost model



3-M Rolling Straight Edge- A Basic Model



Measurement of Unevenness of Roads in Osmania University by Using **ELECTRONIC 3-M ROLLING STRAIGHT EDGE (ERSE)**



Dynamic Cone Penetrometer (DCP)



Machine Evaluating Roughness using Low-cost Instrumentation (MERLIN)

E-LEARNING MODULES DEVELOPED

DYNAMIC CONE PENETROMETER

Developed by
Dr. R. Srinivasa Kumar
Hyderabad.

Hammer 8Kg
Handle
Top Road
Handle Guard and Cursor
Meter Rule
Anvil
Bottom Rod
Cone

60°
20 MM dia

SUBGRADE

Rock

▶ **START**

New updates are

DYNAMIC CONE PENETROMETER

Developed by
Dr. R. Srinivasa Kumar
Hyderabad.

REPEAT
BACK

60°
20 MM dia

SUBGRADE

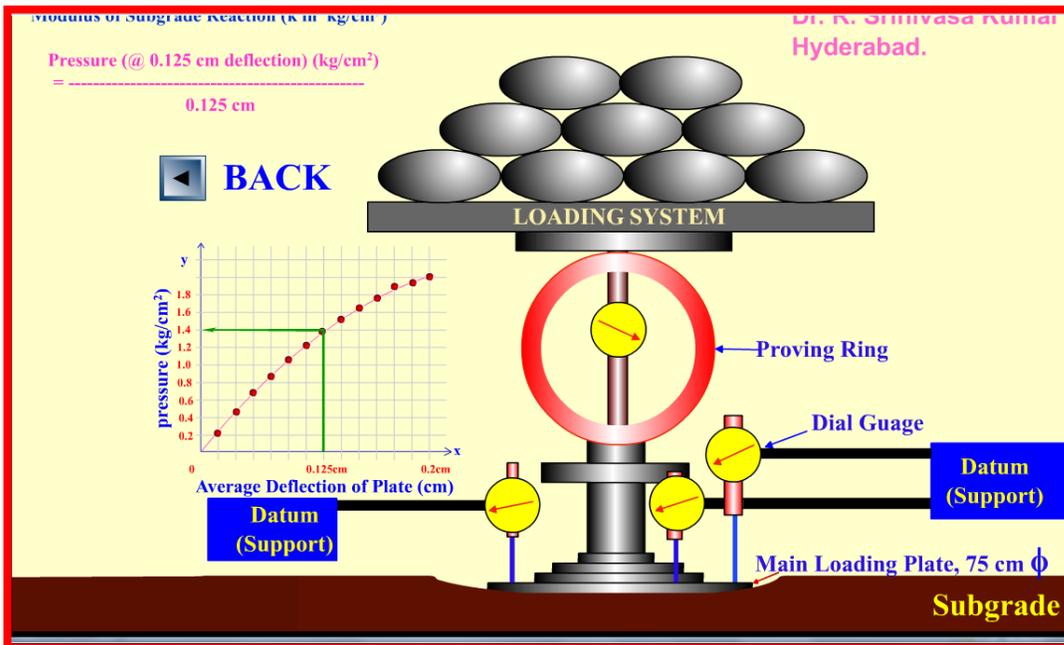
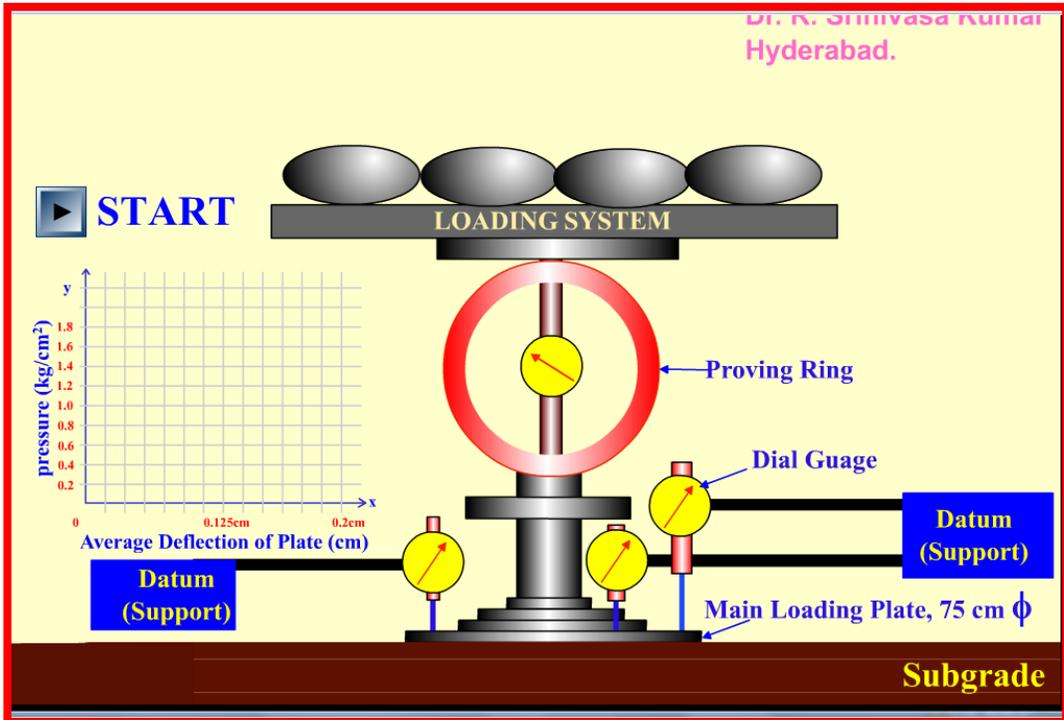
Rock

Cone Penetration (mm)

Number of Blows

Number of Blows	Cone Penetration (mm)
1	5
2	10
3	15
4	20
5	25
6	30
7	35
8	40
9	45
10	50
11	55
12	60
13	65
14	70
15	75

Module-1: Dynamic Cone Penetrometer (DCP)



Module-2: Plate Load Test

START **MARSHALL STABILITY TEST**

Unit Weight (kg/m³)

% Air Voids

% Voids in Mineral Aggregate

Marshall Stability (kN)

Flow (mm)

Proving Ring

Dial Gauge
50 km capacity

Cylinder Specimen

Motor Drive Mechanism

Developed by Dr. R. Srinivasa Kumar, Hyd.

BACK **MARSHALL STABILITY TEST**

Unit Weight (kg/m³)

% Air Voids

% Voids in Mineral Aggregate

Marshall Stability (kN)

Flow (mm)

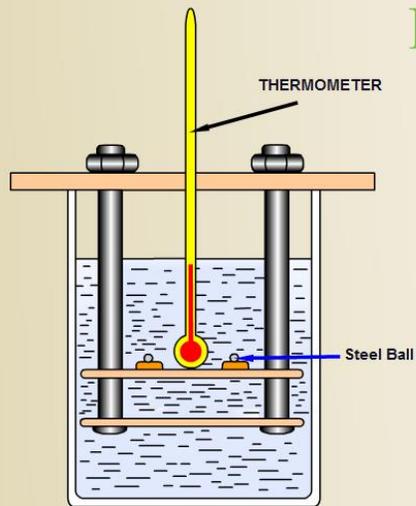
NOTE

1. Select Optimum Bitumen content from these curves based on standard specifications.
2. The mixes with higher values of Marshall stability and extream lower Flow values are some times undesirable because such pavements tend to be to brittle and may easily crack under heavy wheel loading.

Developed by Dr. R. Srinivasa Kumar, Hyd.

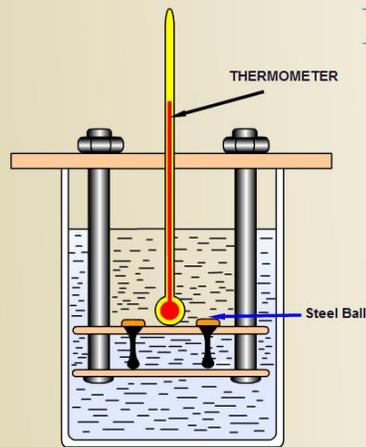
Module-3: Marshall Stability Test on Bituminous Mixes

Ring and Ball Test



● Start

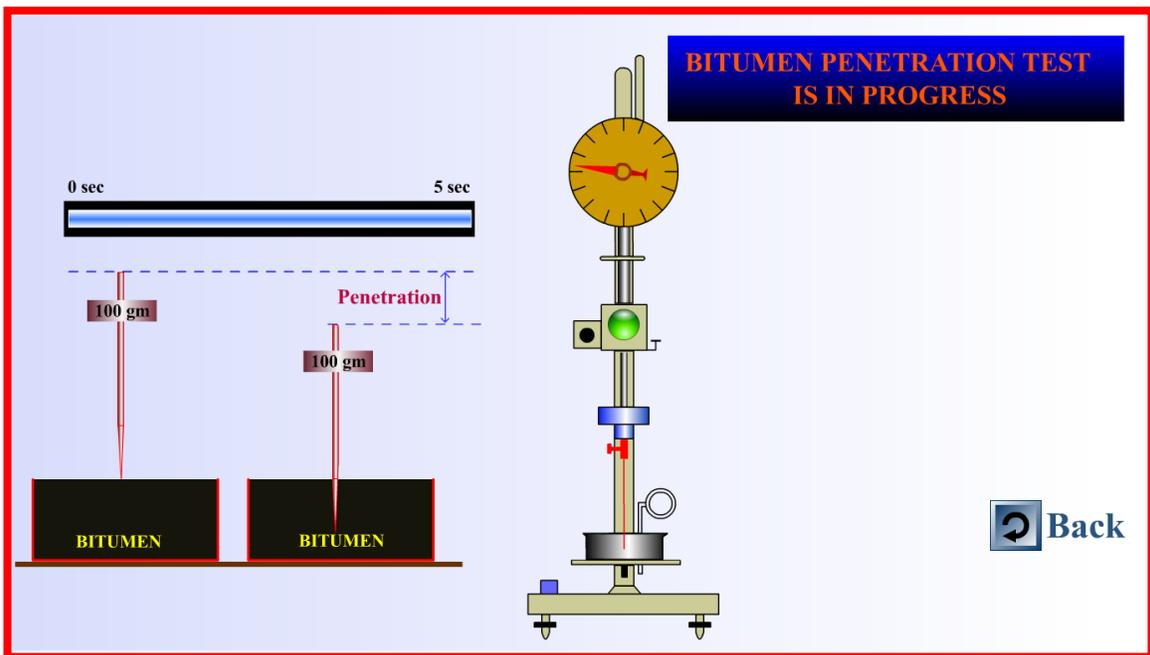
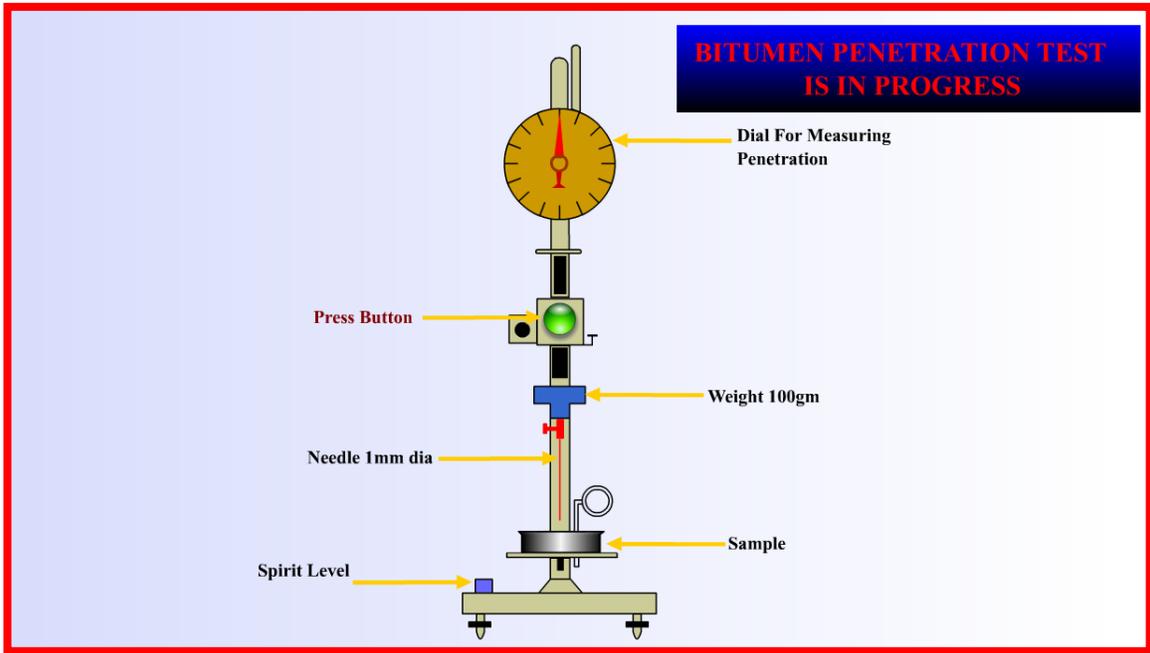
Ring and Ball Test



Rate of Heating = 5°C per Minute

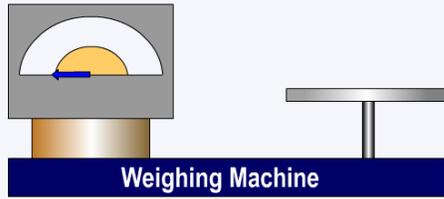
● Start

Module-4: Softening Point Test



Module-5: Needle Penetration Test on Bitumen

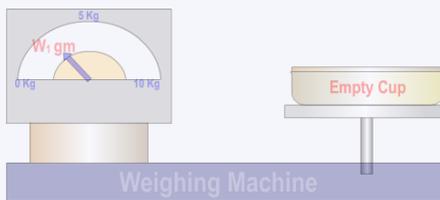
Moisture Content Test



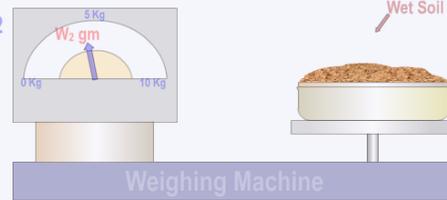
 **START EXPERIMENT**

Moisture Content Test

Step 1



Step 2

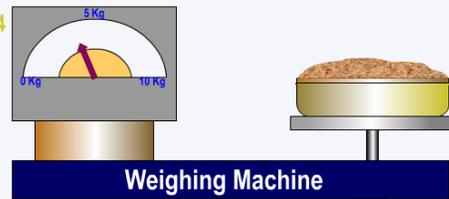


Step 3

Keep the Soil Sample in Oven at 105 -110 ° C for 24 hours. Take out the Sample from Oven and Cool it to Room Temperature

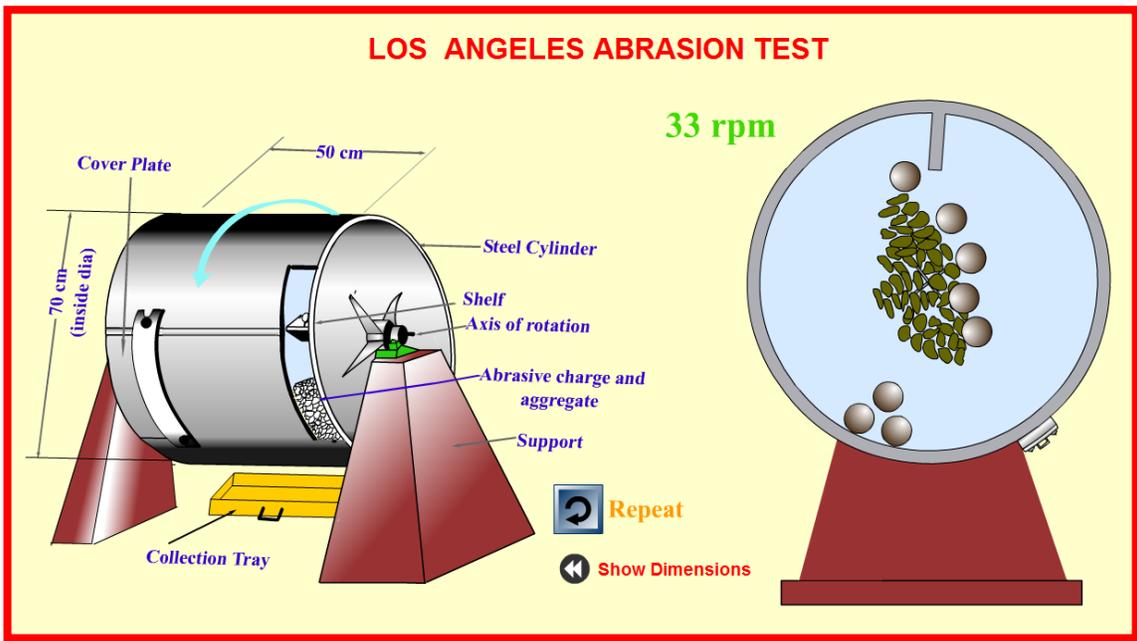
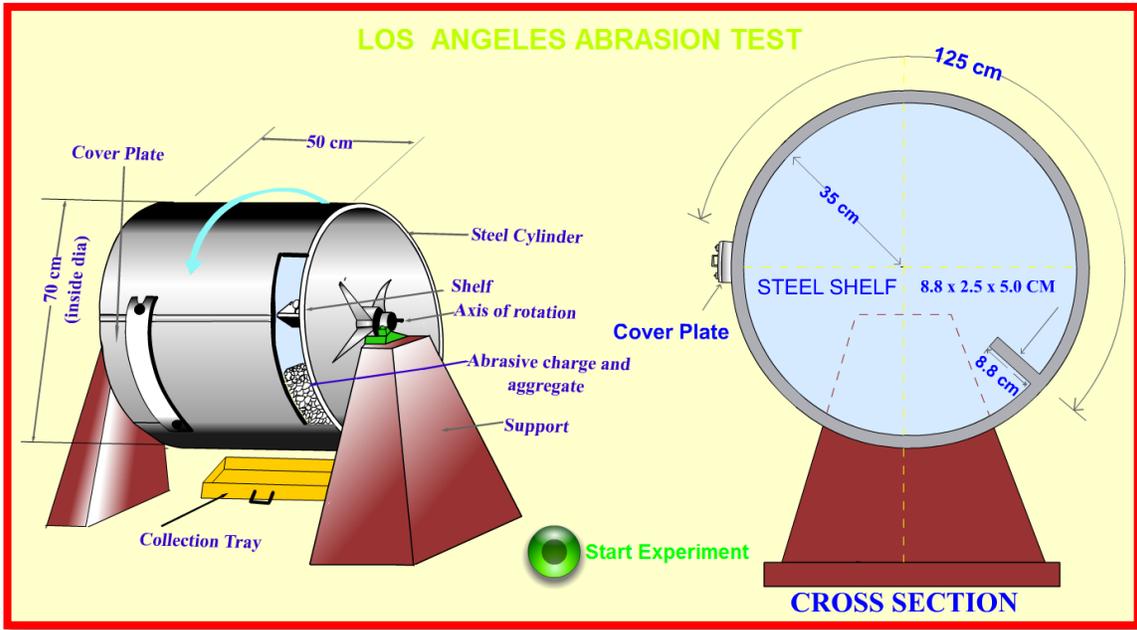


Step 4

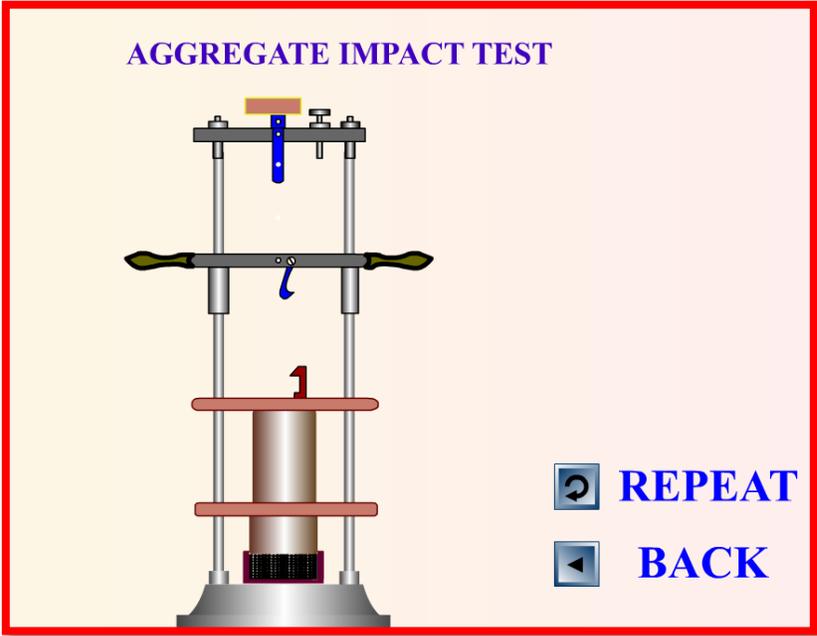
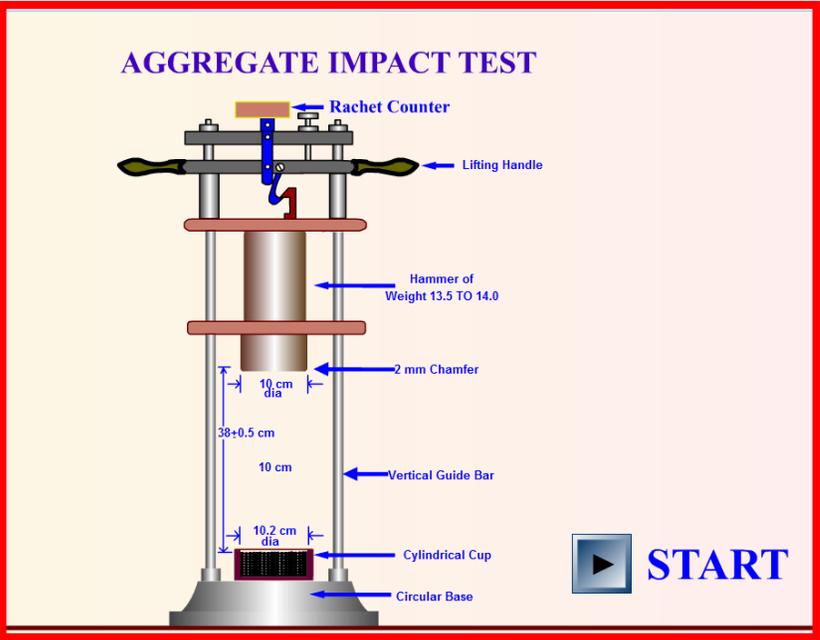


 Back

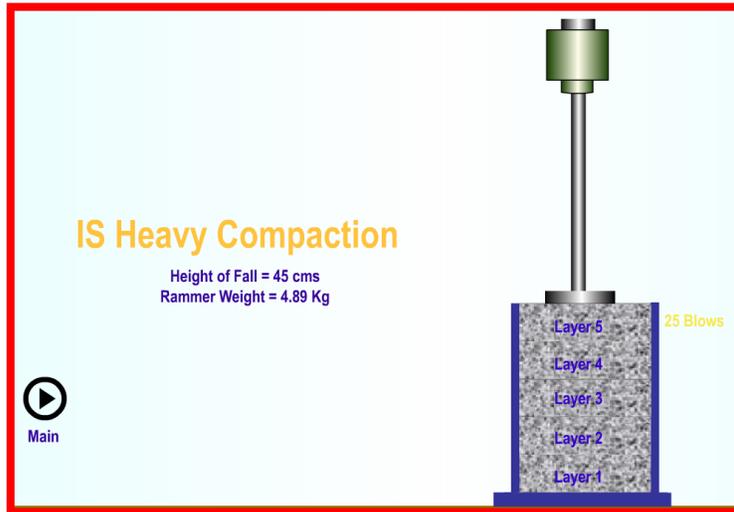
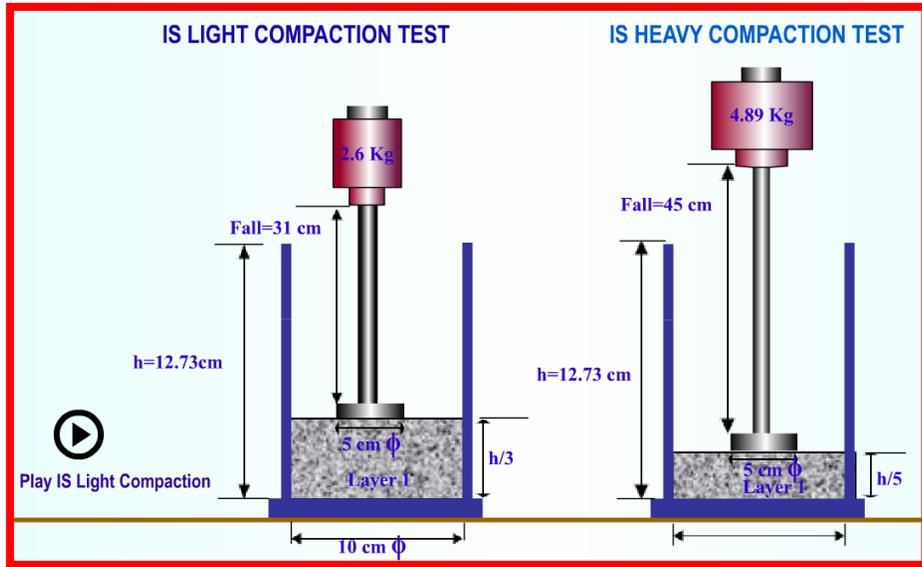
Module-6: Soil Moisture Content Test



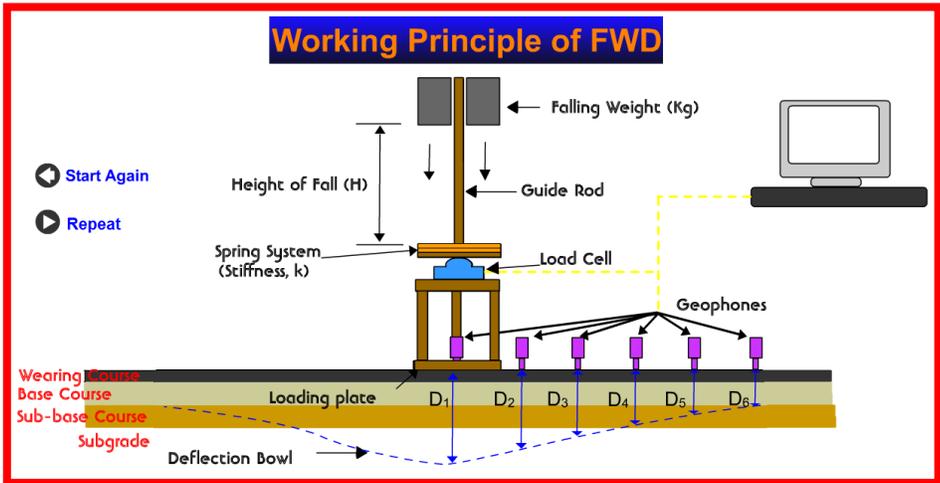
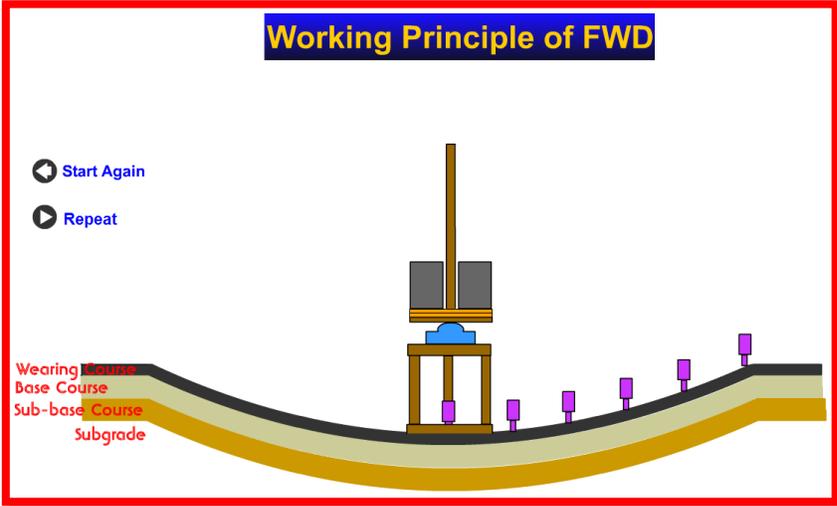
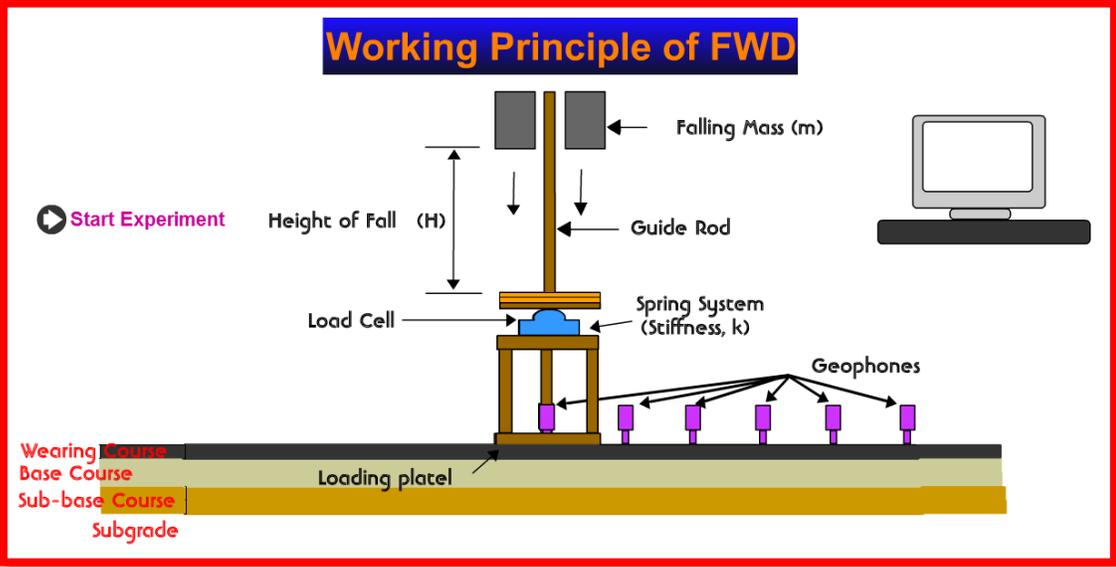
Module-7: Los Angeles Abrasion Test



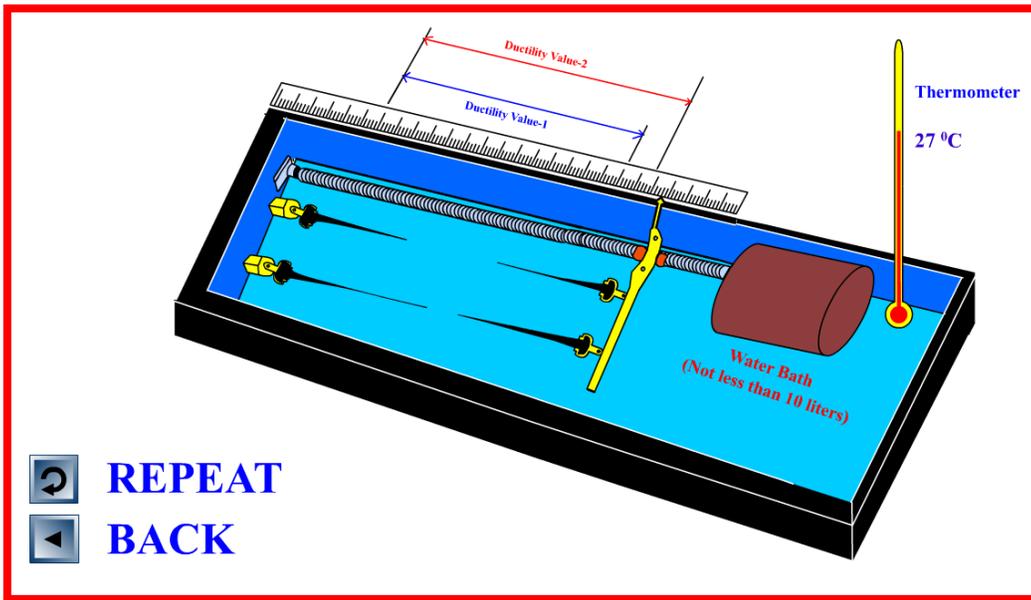
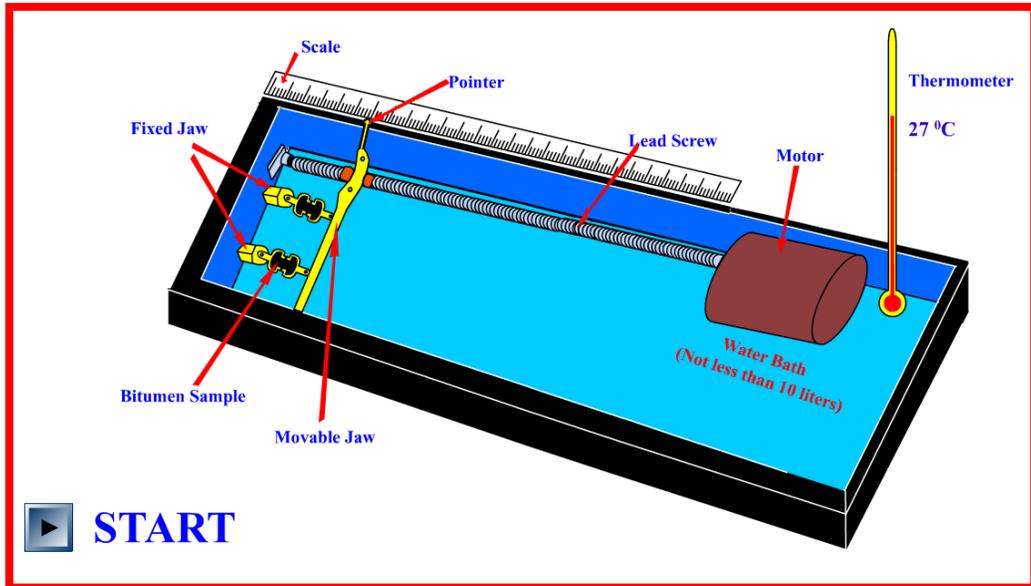
Module-8: Aggregate Impact Test



Module-9: Soil Compaction Tests

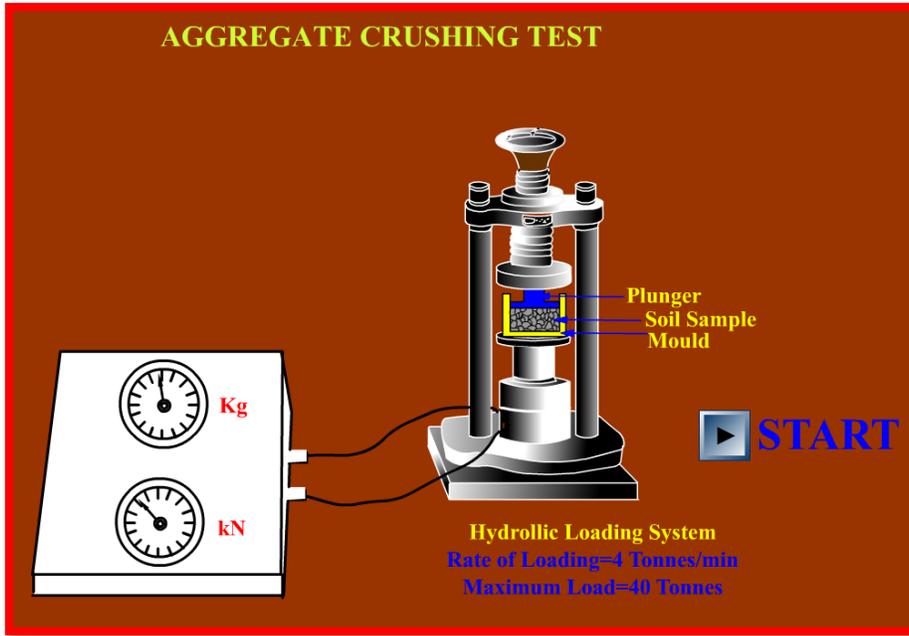


Module-10:Falling Weight Deflectometer (FWD)

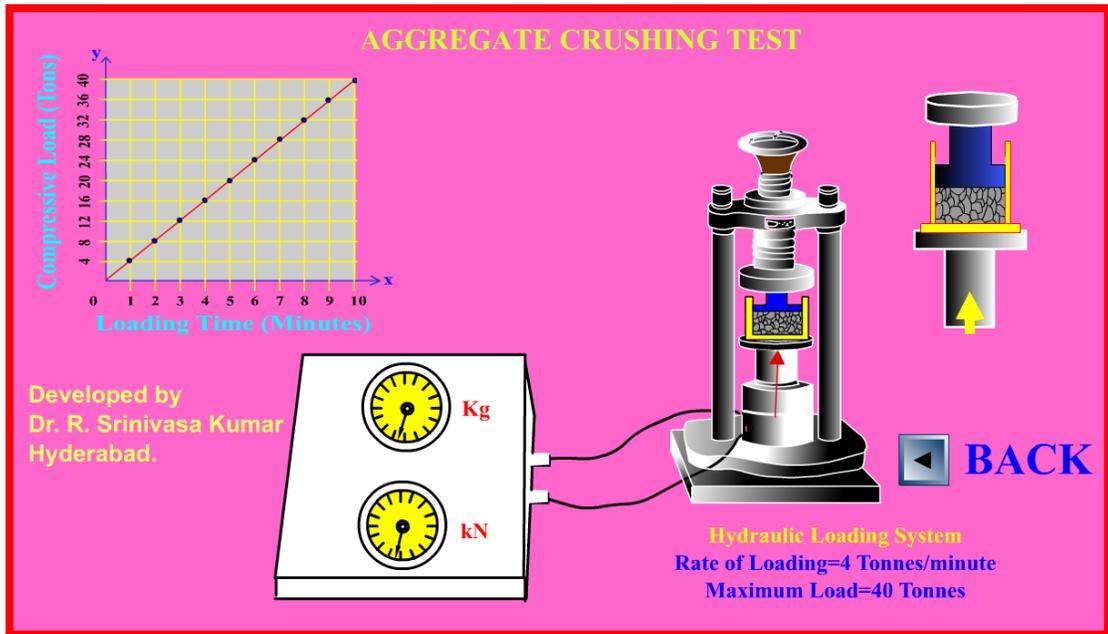


Module-11: Ductility Test on Bitumen

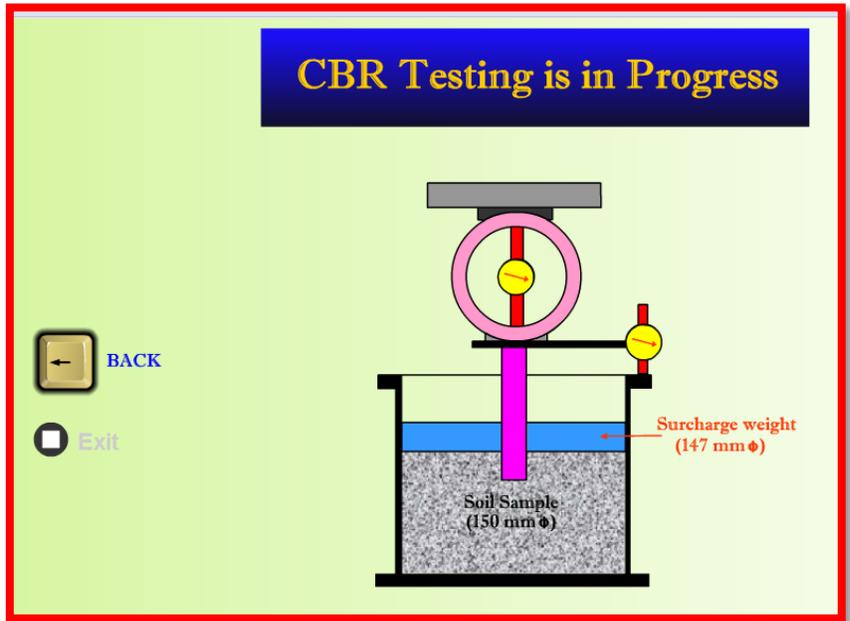
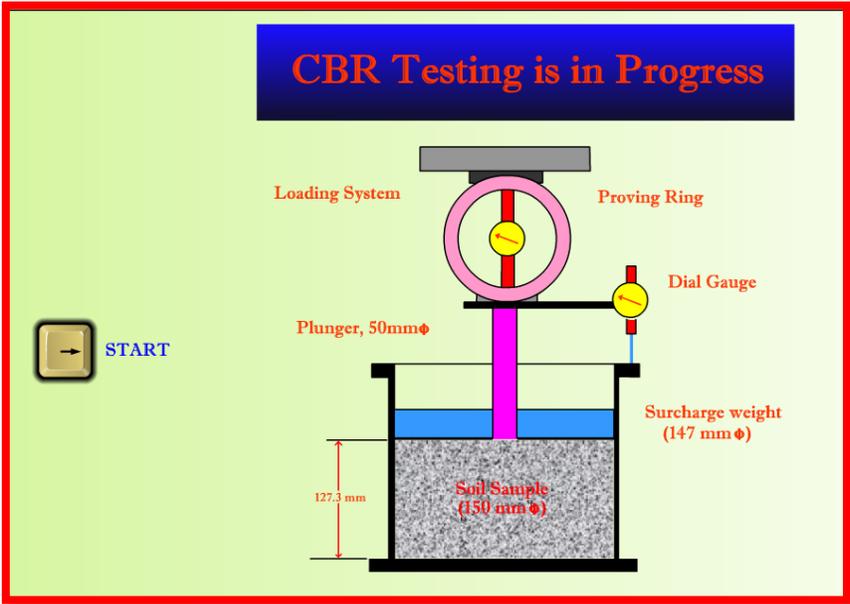
AGGREGATE CRUSHING TEST



AGGREGATE CRUSHING TEST



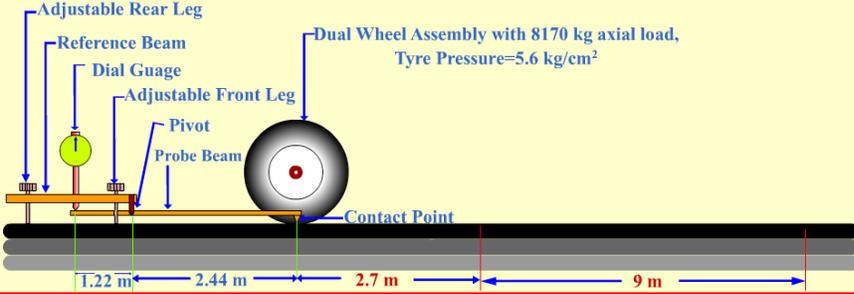
Module-12: Aggregate Crushing Test



Module-13: CBR Test on Sub-grade Soil

Benkelman Beam Test

▶ START

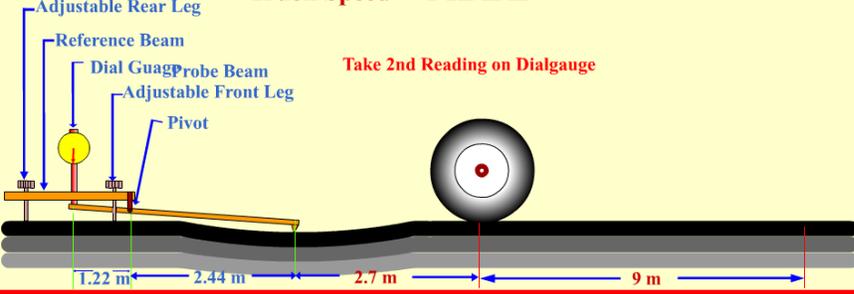


Benkelman Beam Test

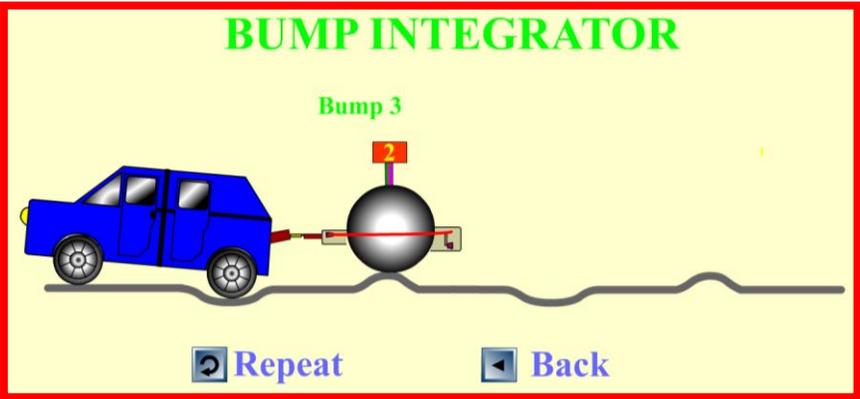
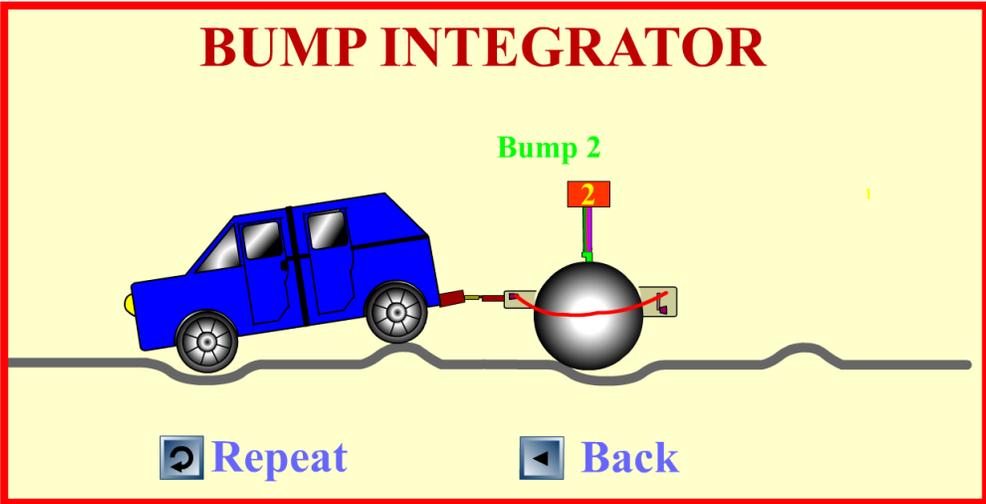
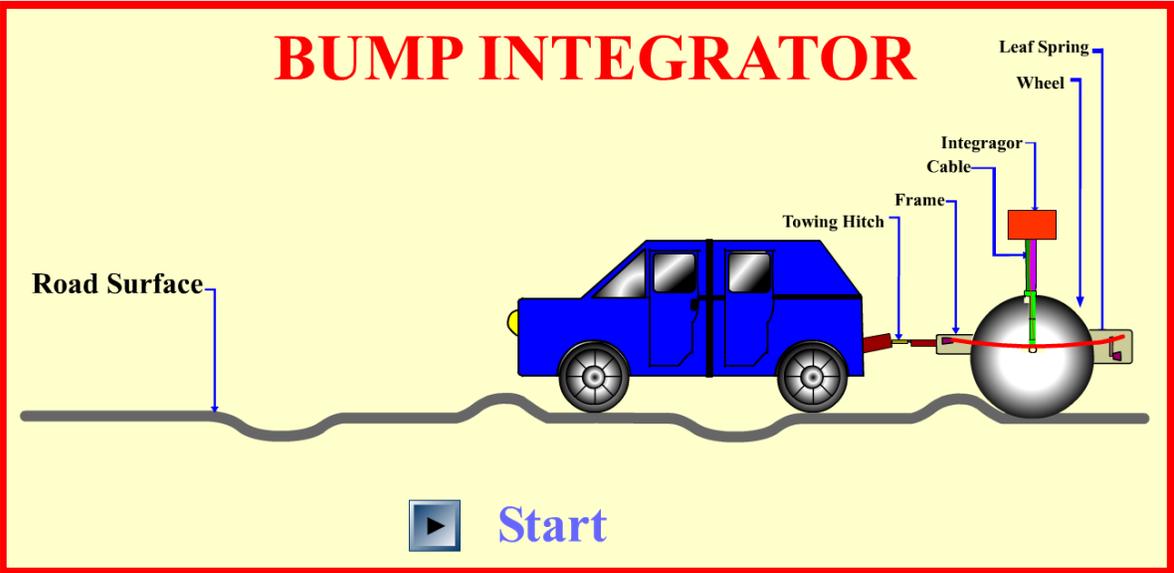
↻ REPEAT
◀ BACK

Truck Speed < 2 KMPH

Take 2nd Reading on Dialgauge



Module-14: Benkelman Beam Test



Module-15: TRL 5th Wheel Bump Integrator