

SUNNY DEOL GUZZARLAPUDI

Assistant Professor

Department of Civil Engineering

E-Mail ID : gsunnydeol@gmail.com

: sdguzzarlapudi.ce@nitrr.ac.in

Phone No : +91-9589103166



RESEARCH INTERESTS:

- Pavement systems modelling
- Evaluation of pavement systems
- Modelling of pavement materials
- Maintenance and rehabilitation of pavement
- Transport econometric modelling
- Regional transportation demand modelling
- Freight transport modelling

EDUCATION:

- **S. V. National Institute of Technology (NIT), Surat** (2012- pursuing) Thesis submitted *Doctor of Philosophy* in Civil Engineering (Transportation Engineering & Planning)
- **S. V. National Institute of Technology (NIT), Surat** (2010-2012) *Master of Technology* in Civil Engineering (Transportation Engineering & Planning)
- **University College of Engineering, Jawaharlal Nehru Technological University (JNTU) Kakinada** (2004-2008) *Bachelor of Technology* in Civil Engineering

PROFESSIONAL APPOINTMENTS

National Institute of Technology (NIT) Raipur, India

Assistant Professor (July 2013 to till date)

L&T (ECC division)-JV Indu Projects Ltd, India

Planning and Billing Engineer (June 2008 to May-2010)

PUBLICATIONS

International Journals:

1. **Guzzarlapudi, S. D.**, Adigopula, V.K., and Kumar, R. (2016). “Comparative studies of lightweight deflectometer and Benkelman beam deflectometer in low volume roads” Journal of traffic and transportation engineering, Elsevier publishers, 10.1016/j.jtte.2016.09.005.
<http://www.sciencedirect.com/science/article/pii/S2095756416302008>.
2. **Guzzarlapudi, S. D.**, Adigopula, V.K., and Kumar, R. (2016). “Comparative study of flexible pavement layers moduli backcalculation using approximate and static approach”, Materials Today: Proceedings, Elsevier publishers, (Accepted) 10.1016.

National Journal:

1. Joshi, G., Vagadiya, D., **Guzzarlapudi, S. D.** (2013). Impact of Proposed River Bridge on Level of Service of Existing Bridge and Linked Corridors: A Case Study of Surat City”, Urban Transport Journal, Institute of Urban Transport (India), 2013.

International/National Conferences/seminar/convention

1. **Guzzarlapudi, S. D.**, Adigopula, V.K., Kumar, R. (2016). “Comparative study on estimation of Pavement condition index using ASTM, IRC and regression techniques” A National Conference on Fifteen Years of PMGSY (FYPMGSY), Transportation Engineering Group, Civil Engineering Department, Indian Institute of Technology Roorkee, Roorkee-247667 (Uttarakhand).
 2. **Guzzarlapudi, S. D.**, Singh, Kunal., Kumar, R. (2014) “Prediction of 2D-Structural Deformation of Flexible Pavement using Artificial Neural Networks”, International Conference on Recent Trends and Challenges in Civil Engineering, MNNIT Allahabad, India.
 3. **Guzzarlapudi, S. D.**, Garg, M., Goyal, N. (2014) “A Novel Freight Traffic Forecasting Algorithm using Econometric Modeling as per IRC Guidelines”, International Conference on Recent Trends and Challenges in Civil Engineering, Allahabad, India.
 4. Shukla, S., **Guzzarlapudi, S. D.**, Agarwal, P.K., (2014) “Accelerated Safety Evaluation Technique for Road Intersection in Indian Scenario”, International Conference on Recent Trends and Challenges in Civil Engineering, MNNIT Allahabad, India.
 5. Swami, M., **Guzzarlapudi, S. D.**, Kumar, R. Parida, M., (2012) “Road Safety Audit and Road Safety Audit Review of National Highway Corridors in Gujarat”, Twenty Eighth National Convention of civil engineers and national Seminar on Role of Infrastructure for Sustainable Development, Institute of engineers, India, IIT Roorkee.
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RESEARCH PROJECTS

- “Performance evaluation of some selected PMGSY roads in the state of Chhattisgarh”, PI: Dr. R.K. Tripathi, Co-PI: Guzzarlapudi. S.D, Co-PI: Dr. L.K. Yadu, Funded by National Rural road development Agency (NRRDA), New Delhi, MORD, Govt. of India (Project Cost: Rs. 41.89 Lakhs) – Ongoing

PROFESSIONAL ACTIVITIES

Training Programme/Workshop Conducted

1. One week TEQIP sponsored short term training programme (STTP) on “Testing methods in Civil Engineering Construction”. **Coordinators: Shri. Sunny Deol G and Dr. L.K.Yadu**, 16th November – 20th November, 2015 at National Institute of Technology (NIT) Raipur, India.
2. One day TEQIP sponsored workshop on “Research Schemes in DST & Recent Advances in Civil & Transportation engineering”, **Coordinators: Shri. Sunny Deol G and Dr. L.K.Yadu**, 1st August 2015, at National Institute of Technology (NIT) Raipur, India.

Expert Lecture Delivered

1. Delivered lecture on “Demonstration of TranSYT software” **in** One day TEQIP sponsored workshop on “Research Schemes in DST & Recent Advances in Civil & Transportation engineering”, Coordinators: Shri. Sunny Deol G and Dr. L.K.Yadu, 1st August 2015, at National Institute of Technology (NIT) Raipur, India.
2. Delivered lecture on “Tests on Bitumen and Mix design of Bituminous concrete and Performance Evaluation of Pavements using BBD & LWD and other field tests”, in One week TEQIP sponsored short term training programme (STTP) on “Testing methods in Civil Engineering Construction”. Coordinators: Shri. Sunny Deol G and Dr. L.K.Yadu, 16th November – 20th November, 2015 at National Institute of Technology (NIT) Raipur, India.
3. Delivered lecture on “Recent Advances in Pavement design”, in one day workshop under research project “Construction of Low Volume Roads on Soft Subgrade Soil Improved by Locally Available Marginal Materials” funded by Human Settlement Management Institute (HSMI), HUDCO New Delhi at Civil Engineering Department, National Institute of Technology Raipur in association with HSMI, HUDCO New Delhi on 14th August 2015.

Membership of Professional Societies

- Life member, Indian Road Congress
- Life Member of Institute of Urban Transport

Administrative Responsibilities

- TEQIP-II Departmental Coordinator of Civil Engineering Department, NIT Raipur, Chhattisgarh, India. (August 2016 to till date).
- Transportation Engineering Laboratory Incharge in Civil Engineering Department, NIT, Raipur, Chhattisgarh, India (August 2013 to till date).
- Member of Accreditation for UG program, Civil Engineering Department, NIT, Raipur, Chhattisgarh, India
- Member of several department purchase committees in laboratory equipment purchase.
- Member of Academic audit, March 2015, Civil Engineering Department, NIT, Raipur, Chhattisgarh, India.
- Member of Institute Maintenance Committee for Eklectrika.
- Member of the Anti Ranging Committee.

Consultancy Works

Involved in various consultancy projects (approx. 40 No's) in diverse areas of Transportation Engineering such as **“Design and Proof checking of flexible and rigid pavement, Pavement evaluation and maintenance, Traffic forecasting and toll revenue estimation, Urban and regional travel demand modelling, and Freight transport modelling”**.

ACADEMIC ACTIVITIES

Student Projects (Undergraduate Level) 8 completed 2 ongoing

- Akarshan Avinash, Shubham Arya, Vivek gupta “Comparative study on estimation of Pavement condition index using soft computing techniques”. (Ongoing)
- Vivek verma, Sumit, “Modeling of vehicular and pavement distress characteristics on estimation of Vehicle damage factor”. (Ongoing)
- Bhumika Katiyar, Reddicherla Chandana and Abhishek Sharma, (2016), “Comparative study of intercity mode choice modelling: A case study of Proposed High speed rail”.
- Akash Misra, Digvijay Kumar and Harvind Meena, (2016), “Development of Modified route choice model for rural highway”.
- Kunal Singh and Ravikant Gupta, (2015), “Modeling of Resilient Modulus of Cohesive Sub-Grade Soil Using Field Testing Data by Soft Computing Techniques”.
- Anurag Singh, (2015), “Influence of Axle and Pavement Distress Characteristic on Estimating the Load Equivalence Factor (LEF)”.
- Mohit Kumar Yadav, (2015), “Viscoelastic modeling for the prediction of Shear Strain in asphalt pavement”.

- Himanshu Namdeo, Shivam Sisodia and Swapnil Shukla, (2015), “Utilization of LDPE And HDPE Polymer as a Binder and as Filler In Bituminous Mix”, as Co-Guide.
- Manish Sahu and Livendra pratap (2014), “Comparative study on empirical and Mechanistic empirical design of low volume flexible pavements”.
- Lav Kumar and Namit Goyal, (2014), “Comparative study of AASHTO and IRC design of low volume flexible rigid pavements”.

Courses Taught

Course code	Course Name
CE-416	Transportation Engineering-I
CE-414	Civil Engineering Drawing
CE-514	Transportation Engineering-II
0020111C	Basic Civil Engineering
CE-326	Material Testing Lab
CE-426	Transportation Engineering-I Lab
0020224(CI)	Basic Civil Engineering Lab
