# Name in Full: MANINDER SINGH

# Department: CIVIL ENGINEERING DEPARTMENT, PUNJABI UNIVERSITY, PATIALA

# **Designation**: ASSISTANT PROFESSOR

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Date of Birth: 18-11-1979

**Nationality: INDIAN** 

Sex: MALE

Areas of Specialisation: Highways

Current Areas of Research: Highway Materials

## Academic Record (starting with Bachelor's Degree)

Degree (Subjects)	Institution	Year	Marks & Division
B.Tech Civil	Thapar University	2002	68%, First
M.E Highways	Punjab Engg. College, Chandigarh	2005	68%, First
PhD	IIT Roorkee	2013	
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Teaching Experience: 7 years

**Industrial Experience** : 3 years

## **Memberships of Technical Societies**

1. Associate Member Institute of Engineers (IE). Membership No: AM095648-4

2. Life Member Indian Geotechnical Society (IGS). Membership No.: LM-3351

3. Life Member Indian Society of Rock Mechanics and Tunneling Technology. (ISMRTT). Membership No: LM 1913

## Workshops/ Trainings/Short Term Programmes

1. National Workshop on "Quality Control in Construction Through Precision Equipments-2007" at IIT Roorkee on 24<sup>th</sup> October, 2007.

2. Short Term training programme on "Pre-Engineered Buildings" at IIT Roorkee from May 20-23, 2008.

3. Faculty Development Programme on "Teaching Methodology in Engineering & Technology" at MM Engineering College, Mullana from 26<sup>th</sup> May-06<sup>th</sup> June, 2008.

4. Summer School on "Cleaner Production Technology" at NITTTR, Chandigarh from 28<sup>th</sup> July – 01 August 2008.

5. Refresher Course held at Punjabi University from 12.05.2014 to 31.05.14.

6. Orientation Course held at Punjabi University from 01.10.2015 to 28.10.2015.

## **Conferences Participated/ Sessions Chaired**

1. Participated in the "National Conference on Recent Trends in Highways & Bridges", held at Thapar Institute of Engineering and Technology, Patiala, Punjab on 18-19 Feb, 2005.

2. Presented a keynote address at 2<sup>nd</sup> International Conference on "Evolution in Science & Technology & Eyne on Education Methodologies", held at PPIMT, Hisar on March 3-4, 2013

3. Chaired Technical Session at International Conference on "Sustainable Innovative Techniques in Civil and Environmental Engineering" held at JNU, New Delhi on 5<sup>th</sup>-6<sup>th</sup> June, 2013.

4. Participated in National Conference on "Air Pollution: Effects on Health and Environment" held at Desh Bhagat University, Mandi Gobindgarh, Punjab on 1-2 March, 2014.

5. Chaired Technical session at a National Conference on "Recent Advances in Solid Waste Management" held at Chandigarh University, Punjab from 22<sup>nd</sup> -23<sup>rd</sup> Dec, 2014.

## **Expert Lectures**

1. Delivered expert lecture at Rayat Bahra Group of Institutions, Patiala Campus on 17.09.15

## PAPERS PRESENTED

1. Presented a paper titled "Feasibility Study of a Rotary at Saha on Section of NH-73 in Haryana" at the International Conference on "Advances in Concrete, Structural and Geotechnical Engineering" held at BITS, Pilani, Rajasthan from 25-27 October, 2009.

2. Presented a paper titled "Evaluation of Ageing Effect on Properties of Virgin and Polymer Modified Bitumen" in International Conference on "Sports Biomechanics, Emerging Technologies & Quality Assurance in Technical Education" held at Prannath Parnami Institute of Management & Technology, Hisar from 17-18 March, 2012.

3. Presented a paper titled "Review of Studies on Moisture Susceptibility Behaviour of Modified Bituminous Mixes" at 2<sup>nd</sup> International Conference on "Evolution in Science & Technology & Eyne on Education Methodologies" held at Prannath Parnami Institute of Management & Technology, Hisar from 3-4 March, 2013.

4. Presented a paper titled "Laboratory Study on Skid Resistance and Rutting of SBS Modified Bitumen Mixes" at 2<sup>nd</sup> International Conference on "Evolution in Science & Technology & Eyne on Education Methodologies" held at Prannath Parnami Institute of Management & Technology, Hisar from 3-4 March, 2013.

5. Presented a paper titled "Numerical Analysis of Geogrid Reinforced Embankment" in International Conference on "Sustainable Innovative Techniques in Civil and Environmental Engineering" held at JNU, New Delhi from 5<sup>th</sup>-6<sup>th</sup> June, 2013.

6. Presented a paper titled "Infrared and Thermal Evaluation of Neat and SBS Modified Bitumen" in International Conference on "Sustainable Innovative Techniques in Civil and Environmental Engineering" held at JNU, New Delhi from 5<sup>th</sup>-6<sup>th</sup> June, 2013.

7. Presented a paper titled "Use of FTIR Spectroscopy Technique to Study the Effect of Ageing and Bitumen Modification" in 11<sup>th</sup> TPMDC International Conference on "Transportation Planning and Implementation Methodologies for Developing Countries" held at IIT Bombay from 10-12<sup>th</sup> Dec 2014.

8. Presented a paper titled "Steel Slag in Asphalt Concrete Pavements" in National Conference on "Recent Advances in Solid Waste Management" held at Chandigarh University, Punjab from 22<sup>nd</sup> -23<sup>rd</sup> Dec, 2014.

9. Presented a paper titled "Infra Red and Thermal Analysis of Neat and Modified Bitumen" at 75<sup>th</sup> Platinum Jubliee Session of the Indian Roads Congress held at Bhubaneshwar, Orissa from 18<sup>th</sup>-22<sup>nd</sup> January, 2015.

10. Presented a paper titled "Shear and Deformation Behaviour of Stabalized Subgrade Soil by Fly Ash and Bagasse Ash under Repeated Compressive Load" in  $3^{rd}$  Conference of Transportation Research Group of India held at Kolkata, India from  $17^{th} - 20^{th}$  Dec,2015.

#### **INTERNATIONAL JOURNALS**

1) Maninder Singh, Rajiv Chauhan, Vanita Aggarwal, (2010), "Feasibility Study of a Rotary at Saha on Section of NH-73 in Haryana", International Journal of Earth Sciences and Engineering, Vol 3,No.4,pp.652-660,July 2010

2) Anita Mehmi, Vanita Aggarwal, Maninder Singh, (2010),"Durability Aspect of Fly Ash Concrete", International Journal of Earth Sciences and Engineering, Vol 3,No.4,pp.572-581,July 2010

3) Praveen Kumar, Md. Tanveer Khan, Maninder Singh, (2012),"Evaluation of Physical Properties of SBS Modified Bitumen and Effect of Aging", International Journal of Elixir Chemical Engineering, 46,pp.8299-8303,May 2012

4) Maninder Singh, Praveen Kumar, M.R.Maurya (2012),"Evaluating Properties of Modified Bitumen Before and After Ageing", International Journal of Global Technology Initiatives ,Issue1,pp.1-7.March 2012

5) Maninder Singh, (2012),"Evaluating Physical, Rheological and Chemical Properties of Modified Bitumen", Bonfring International Journal of Industrial Engineering and Management Science, Vol.2, No.4,pp.168-173,December 2012.

6) Maninder Singh, Praveen Kumar, M.R. Maurya, (2012),"Ageing Effect on Modified Bitumen" International Journal of Engineering Science & Metallurgy, Vol 2, No.3, pp727-731, September 2012.

7)Rajiv Chauhan, S.Mittal, Maninder Singh, (2013)," Numerical Analysis of Geogrid Reinforced Embankment" International Journal of Civil Engineering and Applications, Vol.3.Number 4,June 2013

8) Maninder Singh, Praveen Kumar, Rajiv Chauhan, (2013)," Infrared and Thermal Evaluation of Neat and SBS Modified Bitumen" International Journal of Civil Engineering and Applications, Vol.3.Number 2,June 2013.

9) Maninder Singh, Praveen Kumar, M.R. Maurya, (2013),"Effect of aggregate types on the performance of neat and EVA modified asphalt mixtures", International Journal of Pavement Engineering, Vol 15,Issue 2,pp.163-173,July 2013.

10) Maninder Singh, Praveen Kumar, M.R. Maurya, (2013),"Strength characteristics of SBS modified asphalt mixes with various aggregates", International Journal of Construction and Building Materials,41,pp.815-823.

11) Maninder Singh and Rajiv Chauhan, (2014)," Steel Slag in Asphalt Concrete Mixes", International Journal of Civil Engineering, Vol 1, Issue 1,pp 27-30.

12) Maninder Singh, Praveen Kumar, Aditiya Kumar Anupam (2015),"Effect of Type of Aggregate on Permanent Deformation of Bituminous Concrete Mixes", Journal of Road Materials and Pavement Design, 2015.(Accepted 2015)

## **NATIONAL JOURNALS**

1) Praveen Kumar, M.R.Maurya, Manoj Gupta, Maninder Singh,(2012)," Lab study on chemical and rheological changes in modified binders", *Highway Research Journal*, Jan-June, pp.1-13

2) Maninder Singh. Praveen Kumar, M.R.Maurya, (2014),"Infra Red and Thermal Analysis of Neat and Modified Bitumen", Journal of the Indian Roads Congress, April-June, pp.103-112.

3) Maninder Singh. Praveen Kumar, (2015),"Determination of Mixing and Compacting Temperatures for Neat and Modified Bitumen" Journal of Indian highways,Vol.43,Sept,pp.13-23

## **INTERNATIONAL CONFERENCES**

1) Maninder Singh, Praveen Kumar, M.R. Maurya, (2012),"Evaluating the Effect of Polymer modification on physical and rheological properties of conventional bitumen" International Conference on Advances in Architecture and Civil Engineering (AARCV),India,Vol 1,pp.481-484.

2) Maninder Singh, Praveen Kumar ,(2012),"Effect of Ageing on Physical and Rheological Properties of Modified Bitumen", 25<sup>th</sup> ARRB Conference, Perth,Australia.23-26 Sept.

3) Maninder Singh, Praveen Kumar,(2012),"Laboratory study of skid resistance and rutting of bituminous concrete", Seventh International Conference on Maintenance And Rehabilitation of Pavements and Technological Control, Auckland,New Zealand.28-30 August.

4) Maninder Singh , Praveen Kumar,M.R. Maurya,(2012),"Effect of Mineralogy of Aggregates on Moisture Susceptibility of Bituminous Mixes",10<sup>th</sup> International conference on Transportation Planning and Implementation Methodologies for Developing Countries, Bombay, India.12-14 December.

5) Praveen Kumar, Maninder Singh, (2012),"Evaluation of ageing effect on properties of virgin and polymer modified bitumen" International Conference on Highway Engineering, Thailand, pp.437-441, April

6) Praveen Kumar, Tanveer Khan, Maninder Singh, (2012),"Effect of Polymer Modification on the Conventional Properties of the Bitumen", International Conference on Emerging Trends in Engineering and Technology, Teerthanker Mahaveer University, April

7) Maninder Singh, Praveen Kumar, (2013),"Laboratory Study on Skid Resistance and Rutting of SBS Modified Bitumen Mixes", 2nd International Conference on Evolution in Science & Technology & Eyne on Education Methodologies, Hisar, India.pp.353-356.3-4 March

8) Sharad Kumar, Praveen Kumar, Maninder Singh, Vikas Kureel, (2013),"Review of Studies on Moisture Susceptibility Behaviour of Modified Bituminous Mixes", 2nd International Conference on Evolution in Science & Technology & Eyne on Education Methodologies, Hisar, India.pp.342-349, 3-4 March

9) Maninder Singh, Praveen Kumar, Manik Goyal, (2013),"Modified Bitumen in Asphalt Concrete Pavements", 2nd International Conference on Evolution in Science & Technology & Eyne on Education Methodologies, Hisar, India.pp.332-337, 3-4 March

10) Kunal Jain, S.S.Jain, Maninder Singh,(2014),"Traffic Flow Characteristics for Multilane Highways in India", 11<sup>th</sup> International Conference on Transportation Planning and Implementation Methodologies for Developing Countries, Bombay, India.10-12 December.

11) Maninder Singh, Praveen Kumar, Kunal Jain, (2014),"Use of FTIR Spectroscopy Technique to Study the Effect of Ageing and Bitumen Modification", 11<sup>th</sup> International Conference on Transportation Planning and Implementation Methodologies for Developing Countries,, Bombay, India.10-12 December.

12) A.K.Anupam, Praveen Kumar, G.D.Ransinchung R.N, Maninder Singh, (2015), "Shear and Deformation Behaviour of Stabalized Subgrade Soil by Fly Ash and Bagasse Ash under Repeated Compressive Load" 3<sup>rd</sup> Conference of Transportation Research Group of India, Kolkata, India, 17-20 December.

# NATIONAL CONFERENCES

1) Rajiv Chauhan, Satyendra Mittal, Maninder Singh, and A. K. Anupam, (2012),"Review of Ground Improvement Techniques for Liquefaction Remediation", National Conference on Advances in Mechanics and Materials, VSS University, Burla, Odisha, India, pp.319-326, 25-26 Feb..

2) A. K. Anupam, Praveen Kumar, G.D.Ransinchung, Maninder Singh, Rajiv Chauhan, (2012),"Stabilizing the Subgrade soil with Slag Cement- A Laboratory Study", Conference on *Advances in Mechanics and Materials, VSS University, Burla, Odisha, India, pp.337-345, 25-26 Feb.* 

*3)* Praveen Kumar, Maninder Singh, (2012),"Effect of Binder and Aggregate on Optimum Binder Content of Bituminous Mixes", Twenty-eighth NCCE & National Seminar on Role of Infrastructure for Sustainable Development, The Institute of Engineers (India), Roorkee, October.

4) Dr. Maninder Singh, Dr. Praveen Kumar, (Aug.6-7,2016),:" Mixing and Compacting Temperatures for Neat and SBS Modified Bitumen." National Conference on fifteen years of PMGSY (FYPMGSY), Indian Institute of Technology, Roorkee (Uttarakhand).

5) Jaspreet Singh, Maninder Singh, Neena Garg (Oct.14-15,2017) "Laboratory Investigation of epoxy asphalt using Marshall method of Mix Design" National Conference on Roads and Transport (NCORT-2017), Indian Institute of Technology, Roorkee (Uttarakhand).

## ARTICLES

1) Praveen Kumar, Maninder Singh,(2012),"Mixing And Compacting Temperatures For Binders", Souvenier CSIR-CRRI Diamond Jubilee, 16 July.