

1. Name: Ambika Behl

Designation and complete address including email id.
 Scientist, Flexible Pavement Division, CSIR-CRRI, <a href="mailto:ambika@gmail.com">ambika@gmail.com</a>

3. Areas of Interest : Pavement Engineering Materials, Sustainable Road Construction Technologies

## 4. Educational Qualification

Degree	Year of	University/ Institution	Subject	Division/Remarks
	Passing			
Ph. D	2016	Indian Institute of	Chemical	Thesis: Performance
		Technology, Roorkee	Engineering	Characteristics of
				Warm Mix Asphalt
M.Tech	2004	Punjab University,	Polymer	1 <sup>st</sup>
		Chandigarh	Technology	
B.Tech	2001	P.T.U Jallandhar	Chemical	1 <sup>st</sup>
			Engineering	

# 5. Professional Experience - in reverse chronological order

Sr.No	Period	Organisation	Position held	
1	Jan 2010- till date	CSIR-CRRI	Scientist	
2.	Jan 2007-Jan 2010	CSIR-CRRI	Scientist B	
3.	2004-2006	CICO & BASF	Product Development	
		Construction	Executive	
		Chemicals		

4.	2001-2002	R.E.C Jallandhar	Lecturer

### 6. Membership to Professional Bodies

Annual member of IRC

Life member of Transportation Group of India

Alternate member of PCD 6 BIS Committee

#### 7. Achievements

- a. Honours and Awards
- Received Commendation Certificate from Indian Road Congress (IRC) for the research paper on "Warm Mix Asphalt- The wave of future", in 73<sup>rd</sup> IRC annual session on January 2013
- Received best research paper award in Hindi on, "Tapat mishrit asphalt mein tapat ka shitikaran", in National seminar on "Naye nirmaan samaghriyan", jointly organized by CRRI and CBRI.

### b. Research Projects

Sl.No	Title of Project
1	Development and application of Polymer Modified Binder with improved Compatibility using non-biodegradable PVC waste.
2	Development of an advance technology to produce and lay down asphalt mixtures at lower temp, and to lower down the plant emissions occurring during HMA process.
3	Validation of IRC 37 design guidelines by using APTF testing facility.
4	Laboratory and field evaluation of Shell Thiopave
5	Field Evaluation of Evotherm WMA Technology
6	12 <sup>th</sup> Five year Plan Project: Task- Estimation of Carbon Foot Prints in Road Construction Process (WP-15)
7	12 <sup>th</sup> Five year Plan Project: Task-Development of Technology for SUPerior PERforming Bituminous PAVEments (SUPPERPAVE) WP-12
8	12 <sup>th</sup> Five year Plan Project: Improved Materials, Mixes and Design Methods towards Achieving Reduced Pavement Thickness (WP-11)
9	Laboratory Evaluation of Rediset LQ based Warm Mix Asphalt
10	Evaluation of Zycotherm and Zydex Nanotechnologies

11	Development of specifications of WMA for Indian conditions-DST sponsored
	project
12	Laboratory evaluation of PE waxes and PE copolymer waxes in bitumen
	modification
13.	Laboratory evaluation of bituminous mixes prepared with Sasobit WMA additive
14.	Laboratory evaluation of Evotherm DAT and Evotherm 3G in warm mixes
15.	Laboratory evaluation of Trinidad Lake Asphalt in bituminous mixes

### c. Research Publications

#### PAPERS PUBLISHED IN JOURNALS

- 1. Behl Ambika, Bose Sunil, Sharma Girish, Kumar Gajendra, and Uma Devi "Warm mix asphalt The wave of future "published in Journal of The Indian Road Congress, Vol. 72-2, page no. 101-107, September 2011.
- 2. Ambika Behl, Prof Satish Chandra, Prof V.K Aggarwal, " Rheological Characterization of Bituminous Binder containing Wax based Warm Mix Asphalt Additive" Journal of Mechanical & Civil Engineering, Volume 9, Issue 1, PP 16-22, 2013.
- 3. Ambika Behl, Girish Sharma, Gajendra Kumar, "A Sustainable Approach: Utilization of Waste PVC in Asphalting of Roads", published in Journal of Construction & Building Materials, Vol.54, pp 113-117, March 2014.
- 4. Khusboo Arora, Uma devi, Ambika Behl and P.K Jain, "Rheology of VG-40 bitumen prepared by a new process", published in International Journal of Construction Materials and Structures, Vol.2, No.1, 28-35, January 2014.
- Ambika Behl, Girish Sharma, Gajendra Kumar, Umadevi Rongali, P.K.Jain, "Effect Of Natural Asphalt On Performance Characteristics Of Bitumen And Its Mixes", published in International Journal of Research in Engineering and Advanced Technology, Volume 2, Issue 6, pp 77-90 ISSN- 2320-8791, January 2015
- Ambika Behl, Satish Chandra, V.K Aggarwal, S. Gangopadhyay, "Zero Shear Viscosity of Bitumen-Filler Mastics of Warm Mix Binders", published in ASCE Journal of Material Science in Civil Engineering, ISSN 0899-1561/04014260(6), Volume 27, Issue 10, October 2015.

### PAPERS PRESENTED/PUBLISHED IN CONFERENCES

 Bose, Sunil, Nagabhushana. M.N., Mittal, Abhishek, & Behl, Ambika, "New and Innovative Technologies for Bituminous Construction Specifications in India", National Get-together on Road Research and its Utilization, Central Road Research Institute, New Delhi, March 5 - 6, 2010

- 2. Behl Ambika, Bose Sunil, Sharma Girish, Kumar Gajendra, Uma Devi "**Tapat Mishrit Asphalt main Tapat ka Shitikaran**" in Hindi in Nirman Surbhi -2010
- 3. Behl, Ambika., Bose, Sunil., Sharma, Girish, "WARM BITUMINOUS MIXES: Road to SUSTAINABLE PAVEMENT!" presented & published in conference proceedings on "Infrastructure, Sustainable Transportation and Urban Planning (CiSTUP 2010- Oct'2010)
- 4. Behl, Ambika, Bose, Sunil, " **Green Roads**", published & presented in International conference on Road Planning, Design and Construction India 2010 by IQPC 13-14<sup>th</sup> Dec, 2010.
- 5. Behl Ambika, Bose Sunil, Sharma Girish, Kumar Gajendra, "Warm Mix Asphalt: Sustainable Pavements" presented & published in the proceedings of Indian Road Congress International Seminar on "Reducing the Carbon Footprint in Road Construction", 17-19<sup>th</sup> February 2011.
- 6. Behl Ambika, Jain P.K, Sharma Girish "Study on waste polyvinyl chloride modified bitumen for paving applications" presented & published in conference proceedings of 25<sup>th</sup> Australian Road Research Board (ARRB) Conference held in Perth Australia.
- 7. Behl Ambika, Chandra Satish, Aggarwal V.K, Gangopadhyay S, "Effect of Sasobit on Viscosity and Rheology of Bituminous Binders", published in proceedings of International conference on Advancements in Chemical Engineering, to be held on 22-23 February 2013.
- 8. Ambika Behl, Gajendra Kumar, Girish Sharma, "**Performance of Low Energy Crumb Rubber Modified Bituminous Mixes**", published and presented at 2<sup>nd</sup> International Conference of Transportation Research Group of India, held at Agra, December 2014.
- 9. Ambika Behl, Gajendra Kumar, Girish Sharma, "Evaluation of field performance of warm-mix asphalt pavements in India", published and presented at 2<sup>nd</sup> International Conference of Transportation Research Group of India, held at Agra, December 2014.
- 10. Ambika Behl, Satish Chandra, S. Gangopadhyay, "Temperature Susceptibility of Warm Mix Bituminous Binders", published and presented at International Conference on Transportation Planning and Implementation Methodologies for Developing Countries organized by IIT Mumbai, December 2014
- 11. Ambika Behl," **Utilization of Waste Plastic and waste tire rubber in Asphalting of Roads**", 3<sup>rd</sup> International Conference on Recycling and Reuse of Materials, International and Inter University Centre for Nanoscience and Nanotechnology, Kerala, India, April 2014.
- 12. Ambika Behl, Gajendra Kumar, Girish Sharma, "Low Energy Crumb Rubber Modified Bituminous Mixes: A Sustainable Road Construction Material", The 14th Annual International conference on Asphalt, Pavement Engineering and Infrastructure, Liverpool Centre for Materials Technology, Liverpool, UK, February 2015.