



**Dr. Reena Singhal**  
**Professor Plastic Tech, HBTU, Kanpur**  
**Ex.HOD; Ex Dean R & D**

B.sc,B.Tech (Chemical Tech.), M. Tech. (Chemical Tech.), Ph.D. (Chemical Tech.)  
Throughout First class, Honors and Merit holder in B.Tech and MTech.

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**Research related Achievements:**

**ORKID ID:** <https://orcid.org/0000-0003-3377-6094>

**43 DOCUMENTS**

**SCOPUS ID :**

<http://www.scopus.com/inward/authorDetails.url?authorID=7202911884&partnerID=MN8TOARS>

**43 DOCUMENTS ON SCOPUS/ORKID/PUBLON**

**CERTIFIED PEER REVIEWER**

**Total citations 904 on Google Scholar**

**Google Scholar citation link-** <https://scholar.google.com/citations?hl=en&user=gMYOu3IAAAAJ>

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**Experience:** Teaching (33 years as follows)

- As **Lecturer in Plastic Department** H.B.T.I., Kanpur from April 7<sup>th</sup> 1989 to Dec. 1998: As **Associate Professor** from 28<sup>th</sup> Dec. 1998 to 28 Dec. 2006
- As **Professor** from 28.12. 2006 to till date (*16 years experience as Professor in Chemical Technology(Plastic Technology)*)
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**Educational Qualifications:**

- **Ph.D.(Chemical Technology)Plastic Technology-1998**-Title of the thesis, “*Study of Physical-Plastic Technology Chemical Factors for Controlled release of drugs from Polymeric matrices.*”H.B.T.I., Kanpur University.

- **M. Tech. (Chemical Technology) Plastic Technology -1988**-H.B. Technological Institute, Kanpur, Plastic Technology First Division with Honors (86.5%) First Position in the Branch.
- **B. Tech. (Chemical Technology) Plastic Technology -1986** -H.B. Technological Institute Kanpur, Plastic Technology First Division with Honors (80.1%) Second Position in the Branch.

## **PUBLICATIONS AND RECOGNITIONS RESEARCH ACTIVITIES**

**Research** : 43 DOCUMENTS on SCOPUS

(a) I have **904 citations on Google Scholar** out of any research work.

**17 Papers are in H-Index; 26 Papers are in i10-Index**

(b) **Eight Ph.D.'s were Guided and completed**

(c) **Paper Published: Total Research Papers Published: =43 on scopus**

❖	No. of International Published Research Papers	=	43
❖	No. of International Published Research Papers (nonscopus)	=	14
❖	No. of Invited Talk delivered	=	22
❖	No. of Presented Research Papers	=	72
	<b>Grand Total</b>	<b>=</b>	<b>151</b>

### **Research projects Completed: Three**

(1) **Completed** by DMSRDE (DR&DO) Kanpur *Polyether Ether Ketone (PEEK), Liquid : Crystalline Polymer (LCP) Blends*, sanctioned money 3.71 lacs. Completed on 31.10.2001.  
Capacity: Co-Investigator.

(2) **Completed Major research project** by UGC "*Copolymeric Hydrogels based adsorbents for removal of toxic heavy metal ions & dyes from industrial wastewaters*" sanctioned money 7.20 lacs, from 1.2.2011-31.01.14; Capacity **Principal Investigator**

(3) Member of the **Center of excellence on lipids at HBTI, Kanpur**; Funded by **Teqip-II**, Project Completed in March 2016; cost: 400 lacs.

(e) **Serving on Editorial board & reviewer board of more than TWENTY international journals**

## **Technical Expert / Member Selection Committees at Organizations:**

1. *Expert Chemical Sciences Department of Science & Technology*
2. *Expert Technology Development Board , Department of Science & Technology*
3. *Convener ,WOMEN STUDY CENTRE ,H.B.T.U., Kanpur & President ICC Committee*

- Member selection committee in Uttarakhand Public Service Commission, Haridwar
- NBA Expert Member for Chemical Engineering & Plastic Technology
- Acted as examiner for Ph.D. for **Delhi Technological University ; Punjab Technical University ,Savitribai Phule Pune University, Pune, Rani Durgawati Vishwavidyalaya, Jabalpur; Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot, Satana, Delhi Technological University, Delhi; Himachal Pradesh University ,Shimla.**
- Invited lectures in Courses/CEP'/EDP'S/Workshops/Conferences:Delivered Invited Talks at important technical events like; various International Conferences, TEQIP Courses; CEP-DRDO programs, Directorate Technical Education, Directorate of Industries, National Productivity Council, Kanpur and Skill Development Programs

### Administrative Experience :

- Served as **Dean Research & Development** since 15.10.2015 to 15.11.2018
- Served as **HOD, Plastic Technology Department** since 19.08.2014 to 21.08.2017
- Acted as **Convener of Ph.D. Ordinance Drafting Committee** of H.B.T.U., Kanpur
- Served as **Assistant Dean of Academics affairs** FROM April 2010-Dec 2010.
- Served as **Assistant Dean of Planning and Resource generation** Dec2010 - March 2013.
- Served as **Warden, Girls Hostel HBTI Kanpur** for 23 years.
- Served as **Expert Plastics and Rubber in U.P.Police Stores & Purchase Committee**
- Served as **Member of Advisory Committee of CIPET, Lucknow; Served as Member Selection Committee for selection of Academic Head ,CIPET, Lucknow**

### Authored Chapters in Encyclopedia/Books :

S. N.	Authors	Title of the book	Name of the publisher	Place of publication	Year of publication	ISBN no.
1.	Dr. Reena Singhal	Muticomponent Anionic Hydrogels; Effect of composition on swelling and controlled release behaviors; Encyclopedia of Biomedical Polymers and Polymeric Biomaterials;	Taylor and Francis	CRC Press Taylor and Francis Encyclopedia	April 2, 2015	97814398 98796
2.	Dr. Reena Singhal	Hydrogels: Mathematical Approaches Encyclopedia of Biomedical Polymers and Polymeric Biomaterials;	Taylor and Francis	CRC Press Taylor and Francis Encyclopedia	April 2, 2015	97814398 98796
3.	Tripti Singh, Reena	Efficient and economical application of a spent waste adsorbent Cu <sup>2+</sup> ion loaded	Water Quality Management; Part of the	Springer nature Singapore, Pvt.	2018	DOI: 10.1007/9

	Singhal	Poly(AAc-AM-SH) superabsorbent hydrogels by reusing it for the adsorption of phosphate ion	Water Science and Technology Library book series (WSTL, volume 79) 257-267	Ltd.		78-981-10-5795-3_22
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**List Of some highly cited Research Papers Published In Peer Reviewed Referred International Journals as mainly as corresponding author( Listed on WEB OF SCIENCE)**

Sl. No.	Title of the papers published	Name of the Journal/Book/Paper	Status of the journal & place of publication	Publication Details, i.e., Volume, Issue, Year	Citation on Google Scholar
1.	Effect of Sodium Alginate Content in Acrylic Acid/Sodium Humate/Sodium Alginate Superabsorbent Hydrogel on Removal Capacity of MB and CV Dye by Adsorption	<b>Journal of Polymer and the Environment I.F. 4.705 (2021)</b>	International Journal Electronic ISSN 1572-8919 Print ISSN 1566-2543	Springer DOI : 10.1007/s10924-018-1349-6  <b>2019</b>	<b>30</b>
2.	Synthesis and characterization of novel poly (Acrylic Acid/Sodium Alginate/Sodium Humate) Superabsorbent hydrogels. Part II: The Effect of SH Variation on Cu <sup>2+</sup> , Pb <sup>2+</sup> Fe <sup>2+</sup> metal ions, MB, CV dye adsorption study Shipra Agnihotri, Dr. R. Singhal	<b>Journal of Polymer and the Environment I.F. 4.705 (2021)</b>	International Journal Electronic ISSN 1572-8919 Print ISSN 1566-2543	Springer DOI 10.1007/s10924-017-0956-y) 14 February, <b>2018</b>	<b>23</b>
3	A Review: Tailor-made Hydrogel Structures (Classifications and Synthesis Parameters); Reena Singhal, Kshitij Gupta	<b>Polymer Plastic and Technology and Engineering ;I.F 2.371 (2020) 5 year IF</b>	International; Taylor & Francis  <b>ISSN 0360-2559 (Print), 1525-6111 (Online)</b>  17 Issues /yr	Published online on <b>Aug 2015</b> ; 55:1, 54-70, DOI: 10.1080/03602559.2015.1050520	<b>84</b>

4.	Poly (Acrylic acid / Acrylamide / Sodium Humate) superabsorbent hydrogels for metal ion/Dye adsorption: Effect of Sodium Humate concentration Tripti Singh and Reena Singhal	<b>Journal of Applied Polymer Science</b> <b>I.F 1.600</b>	International Wiley Interscience Online ISSN: 1097-4628	<b>Vol.125</b> , 1267–1283 ( <b>2012</b> )	<b>59</b>
5.	Methyl Orange Adsorption by Reuse of a Waste Adsorbent poly(AAc/AM/SH)-MB Superabsorbent Hydrogel: Matrix effects, Adsorption Thermodynamic and Kinetics Studies" Tripti Singh, Reena Singhal	<b>Desalination and Water Treatment</b> ; <b>I.F. 1.631</b>	International Taylor & Francis <b>ISSN</b> 1944-3994 (Print), 1944-3986 (Online)	<b>DOI:10.1080/19443994.2013.859098</b> <b>Vol.53( 7), 2015;feb.2015;</b> pages 1942-1956	<b>17</b>
6.	Reuse of a Waste Adsorbent poly(AAc/AM/SH)-Cu Superabsorbent Hydrogel, for the Potential Phosphate ion Removal from Waste Water: Matrix Effects, Adsorption Kinetics, and Thermodynamic Studies. Tripti Singh, Reena Singhal*	<b>Journal of Applied Polymer Science</b> <b>I.F 1.600</b>	International Wiley Interscience Online ISSN: 1097-4628	<b>Vol.129( 6), 2013;15 Sept.2013; 3126-3139</b>	<b>40</b>
7.	Kinetics and thermodynamics of cationic dye adsorption onto dry and swollen hydrogels poly(acrylic acid-sodium acrylate-acrylamide) sodium humate; Tripti Singh, Reena Singhal*	<b>Desalination and Water Treatment</b> <b>I.F. 1.631</b>	International Taylor & Francis <b>ISSN</b> 1944-3994 (Print), 1944-3986 (Online)	<b>Vol.53(13 ), 2015;DOI:10.1080 /19443994.2013.871342;</b> pages 3668-3680	<b>23</b>
8.	Regenerable Hydrogels Based on poly(acrylic acid-sodium acrylate-acrylamide) Modified by Sodium Humate for High Removal of Pb <sup>2+</sup> and Fe <sup>2+</sup> ions: Metal Adsorption Kinetics and Thermodynamic Studies Tripti Singh, Reena Singhal*	<b>Desalination and Water Treatment</b> <b>I.F. 1.631</b>	International Taylor & Francis <b>ISSN</b> 1944-3994 (Print), 1944-3986 (Online)	<b>Vol.52( 28-30), 2014;DOI:10.1080 /19443994.2013.808588;</b> pages 5611-5628	<b>8</b>
9.	Kinetics and thermodynamics of	<b>Desalination</b>	International	<b>Vol.53(13 ),</b>	<b>23</b>

	cationic dye adsorption onto dry and swollen hydrogels poly(acrylic acid-sodium acrylate-acrylamide) sodium humate; Tripti Singh, Reena Singhal*	<b>on and Water Treatment</b> <b>I.F. 1.631</b>	Taylor & Francis <b>ISSN</b> 1944-3994 (Print), 1944-3986 (Online)	<b>2015;DOI:10.1080/19443994.2013.871342;</b> pages 3668-3680	
10	A study on interaction and solubility of acetaminophen with poly (AM-co-HEA-co-AA) hydrogels by DSC: Effect on drug diffusion behavior Seema Awasthi and Reena Singhal	<b>Journal of Macromolecular Science, Part A: Pure and Applied Chemistry</b>	International;Taylor & Francis, <b>ISSN</b> 1060-1325 (Print), 1520-5738 (Online) <a href="https://doi.org/10.1080/10601325.2012.736266">https://doi.org/10.1080/10601325.2012.736266</a>	<b>Vol. 50; Issue I, January 2013, 72-89</b>	<b>7</b>
11.	A Study on Effect of Butyl methacrylate content on Swelling & Controlled Release Behavior of Poly(Acrylamide-co-Butyl-methacrylate-co-Acrylic acid)Environment Responsive Hydrogels”;Reena Singhal, Indu Gupta	<b>International Journal of Polymeric Materials</b>	International Taylor & Francis	<b>Vol. 59 :1–20, (2010)</b>	<b>15</b>
12.	Synthesis of Poly(Acrylamide-CO-acrylic acid) based super absorbent hydrogels by gamma radiation: Study of Networks Parameters and Swelling behaviour,” Rajiv Singh Tomar, Indu Gupta,A. K. Nagpal & Reena Singhal	<b>Polymer Plastic and Technology and Engineering</b>	International Taylor & Francis <b>ISSN</b> 0360-2559 (Print), 1525-6111 (Online) 17 Issues /yr	<b>Vol. 46: 1–8, 2007</b>	<b>58</b>
13.	Synthesis of poly(acrylamide-co-acrylic acid)-based Super-absorbent hydrogels by gamma radiation: study of swelling behavior and network parameters”; R. S. Tomar, I. Gupta, Reena Singhal and A. K. Nagpal	<b>Designed Monomers and Polymers</b>	International VSP an imprint of Brill	<b>Vol.10 , No.1 , 49-66, (2007).</b>	<b>19</b>
14.	A Comparative Study of Swelling Properties of Hydrogels based on Poly (Acrylamide-Co-Methylmethacrylate) Containing	<b>The Journal of Applied</b>	International Wiley Interscience Online <b>ISSN:</b> 1097-4628	<b>Vol. 89, 2003, 779-786</b>	<b>57</b>

	Physical & Chemical Crosslinks”; T. Begam, A.K. Nagpal and R. Singhal	<b>Polymer Science</b>			
15.	Synthesis of poly(acrylamide-co- acrylic acid)-based Super- absorbent hydrogels by gamma radiation: study of swelling behavior and network parameters”; R. S. Tomar, I. Gupta, Reena Singhal and A. K. Nagpal	<b>Designed Monomer s and Polymers</b>	International VSP an imprint of Brill	<b>Vol.10</b> , No.1 , 49- 66, (2007).	<b>35</b>
16.	Effect of dynamic crosslinking on impact strength and other mechanical properties of polypropylene/ethylene - propylene - diene rubber blends AK Jain, AK Nagpal, R Singhal, NK Gupta	<b>Journal of applied polymer science</b>	International Wiley Inter Science Online ISSN: 1097- 4628	<b>Vol.78</b> (12), 2089- 2103 (2000)	<b>128</b>
17.	Effect of Dynamic Crosslinking on Tensile Yield Behaviour of Polypropylene (PP/Ethylene Propylene Diene Rubber (EPDM) blends.” A.K. Jain, N.K. Gupta, R. Singhal & A.K. Nagpal	<b>The Journal of Applied Polymer Science</b>	International Wiley Inter Science Online ISSN: 1097- 4628	<b>Vol. 78</b> , 12, 2000 2104-2121	<b>43</b>