


Dr. BENI RAM RAWAL

1. Personal Information			
(i)	Name	Dr. BENI RAM RAWAL	
(ii)	Qualification	PhD	
(iii)	Designation	Professor	
(iv)	Email-id	brrawal@gmail.com	
(v)	Employee No.	500258	
(vi)	Department	Biomedical Engineering	
(vii)	Experience	19 Years	

2. Educational Qualification				
S. No.	Degree	Specialization	Year	University/Board
1.	Ph.D	Biomedical Technology	2012	IIT Delhi
2.	M.E	CAD/CAM	2000	MNNIT, Allahabad
3.	B.E	Mechanical Engineering	1996	MITS, Gwalior

3. Research Interests
CAD/CAM Applications, Biomechanics, Biomedical Engineering

4. Research Paper Publications
(I) International/National Journal Publications
1. B.R. Rawal, V. Pare, and K. Tripathi. " Development of Non contact end effector for Handling of Bakery Products" Int J Adv Manuf Technol (2008) 38:524–528
2. B.R. Rawal, Rahul Ribeiro, Rajesh Malhotra and Naresh Bhatnagar,

“Anthropometric measurements to design best-fit femoral stem for the Indian population”, Indian J Orthop (2012) 46:46-53.

- 3. B.R. Rawal, Rahul Ribeiro, Rajesh Malhotra and Naresh Bhatnagar, “Design and Manufacturing of Femoral Stems for the Indian Population. Journal of Manufacturing Processes (2011) 14(3):216-223 (doi.org/10.1016/j.jmapro.2011.12.004)**
- 4. B.R. Rawal, Rahul Ribeiro, Rajesh Malhotra and Naresh Bhatnagar, “Design and Manufacture of Short Stemless Femoral Hip Implant based on CT Images”, Journal of Medical Sciences, (2011)11:296-301.**
- 5. B.R. Rawal and Naresh Bhatnagar, (2013). An investigation on the effect of groove dimensions and inclination on cementless femoral component in hip arthroplasty, pjbs, 16(24):2073-2075. (DOI: [10.3923/pjbs.2013](https://doi.org/10.3923/pjbs.2013))**
- 6. B.R. Rawal, Rahul Ribeiro, Manoj Chouksey and K. Tripathi, (2013), Biomaterials for cartilage repair: A Review, Journal of Medical Sciences, 14(3):216-223. (DOI: [10.3923/jms.2013](https://doi.org/10.3923/jms.2013))**
- 7. M. Chouksey, K. Tripathi and B. R. Rawal, (2013), Identification of Bearing Stiffness Coefficients using Model Updating, J. Engg. Sc. Mgmt. Ed. Vol-6 (IV): 189-191.**
- 8. Saurabh samadhiya, Amit Yadav, B.R Rawal, (2014), Biomechanical Analysis of Different Knee Prosthesis Biomaterials Using FEM, IOSR-JMCE, 2320-334X, Volume 11, Issue 3 Ver. IV, PP 120-128.**
- 9. Rahul Ribeiro, B. R. Rawal, Naresh Bhatnagar, (2015), The Effect of a Cementless Stem Cross-Sectional Shape on Mechanical Stability: A Finite Element Analysis approach, IARJSET, Vol. 2, Issue 3, PP 9-14. (DOI [10.17148/IARJSET.2015.2303](https://doi.org/10.17148/IARJSET.2015.2303))**
- 10. Rahul Ribeiro, B. R. Rawal, (2016), In-vitro Biomechanical Assessment of a Newly Designed Cement less Femoral Stem, IARJSET, Vol. 3, Issue 6, PP281-284 (DOI [10.17148/IARJSET.2016.3655](https://doi.org/10.17148/IARJSET.2016.3655))**
- 11. B.R. Rawal, Amit Yadav, Vinod Pare, “Life estimation of knee joint prosthesis by combined effect of fatigue and wear” Procedia Technology 23 (2016) PP 60 – 67.**
- 12. S. K. Sharma, Vinod Pare, Manoj Chouksey, B.R. Rawal, “Numerical studies using full car model for combined primary and cabin suspension” Procedia Technology 23 (2016), 171 – 178.**
- 13. Neeraj Pateriya, B.R Rawal, “Productivity Enhancement of Jaw Crusher Using Composite Material” IRJET, Volume: 03 Issue: 06 (2016), PP 1558-1**
- 14. Ambrish Singh, B.R. Rawal, M. Chouksey, Vinod Pare “Finite Element Simulation of the Machining Process with Different Tool Geometries, using Lagrangian Mesh and Johnson-Cook Material Model” Journal of Materials Science & Surface Engineering, 5(6)(2017), 647-652**

(II) International/National Conference Publications

- 1. B.R. Rawal and N.R. Rawal. "Removal of Cr (VI) from water / waste water by low cost Material" Proceeding National seminar on 'Eco-Friendly Technologies and Challenges for Mechanical Engineers' at SGSITS,Indore during 27-28 Jan.,2006, Page 79**
- 2. B.R. Rawal and Basant Agrawal. "Study: E-Waste is Manageable" Proceeding National seminar on 'Eco-Friendly Technologies and Challenges for Mechanical Engineers' at SGSITS,Indore during 27-28 Jan.,2006, Page 97**
- 3. B.R. Rawal, Rahul Ribeiro, Rajesh Malhotra and Naresh Bhatnagar, "Pre-clinical Analysis of the Effect of Cross-Sectional Stem Shape on Primary Stability for Cementless THA" 16th ISME National Conference on "Mechanical Engineering for Sustainable Development" 2-4 Dec., 2010 held at IIT Delhi. (Presented)**
- 4. Saumitra Kumar Sharma, V. Pare, Manoj Chouksey and B. R. Rawal, Modeling and simulation of combined primary and cabin suspension using half car model, 17th ISME National Conference on "Advances in Mechanical Engineering for Sustainable Development" 3-4 Oct., 2015 held at IIT Delhi.**
- 5. D.P.Yadav, VijayBais, Vivek Dhimole, NiteshSuthar, B. R.Rawal, Swati Chogaonkar and R.Sridhar, "Design and Finite Element Simulation of Vacuum System for Insertion Device in Indus-2 Storage Ring" Indian Particle Accelerator Conference (InPAC-2015), Dec 21-24, 2015, Mumbai.**
- 6. Aditi Sharma, B.R. Rawal, Manoj Chouksey, Fatima Qureshi, Sonali Shukla, "Computational fluid dynamics analysis of turbocharger turbine" National conference on emanate trends in mechanical & allied engineering sciences (ETMAES-2016), 1-2 April,2016, CDGI, Indore.**
- 7. Fatima Qureshi, Manoj Chouksey, B.R. Rawal, Aditi Sharma, Sonali Shukla, "Dynamic analysis of connecting rod of diesel engine" National conference on emanate trends in mechanical & allied engineering sciences (ETMAES-2016), 1-2 April,2016, CDGI, Indore.**
- 8. Ambrish Singh, B.R. Rawal, M. Chouksey, Vinod Pare "Finite Element Simulation of the Machining Process with Different Tool Geometries, using Lagrangian Mesh and Johnson-Cook Material Model" National conference on Machining conference on Machining of difficult to machine materials: recent developments, issues and solutions (NCMDMM-17), 3rd- 5th August, 2017, held at NMAM institute of technology, Nitte, Karnataka, India**
- 9. B.R. Rawal, V. Pare and K. Tripathi. "Development of Non contact end effector for Handling of Bakery Products"Proceeding 1st International and 22nd All India Manufacturing Technology Design and Research conference at IIT, Roorkee during 21-23 Dec.,2006 page 13-16.**
- 10.B.R. Rawal, V. Pare, K. Tripathi and M. Chouksey. "Reverse Engineering tools for Mechatronics systems" International conference on recent trends**

in Mechanical Engineering at U.E.C., Ujjain during 4-6 oct., 2007 pages DES 88-91.

11. B.R. Rawal, Abhijith Awale, Rahul Ribeiro, Rajesh Malhotra and Naresh Bhatnagar, "Design and Manufacture of Short Femoral Proximal Stem based on CT Images" The Nineteenth International Symposium on Processing and Fabrication of Advanced Materials (PFAM-19) 14-17 Jan., 2011 University of Auckland, New Zealand. (Presented)
12. B.R. Rawal, Abhijith Awale, Rahul Ribeiro, Rajesh Malhotra and Naresh Bhatnagar, "Design and Development of Titanium based Femoral Stem for Indian Population" The Nineteenth International Symposium on Processing and Fabrication of Advanced Materials (PFAM-19) 14-17 Jan., 2011 University of Auckland, New Zealand. (Presented)
13. B.R. Rawal and Naresh Bhatnagar, An investigation on the effect of groove dimensions and inclination on cementless femoral component in hip arthroplasty, Proceedings of the ASME 2012 Summer Bioengineering Conference, June 20-23, Fajardo, Puerto Rico, USA.
14. B. R. Rawal, Rahul Ribeiro, Naresh Bhatnagar, Validation of Fatigue Failure Results of a Newly Designed Cementless Femoral Stem Based on Anthropometric Data of Indians, Proceedings of the ASME Verification and Validation Symposium (V&V2013), May 22-24, 2013, Las Vegas, Nevada, USA (Paper No. V&V2013-2219)
15. B. R. Rawal, Rahul Ribeiro, Naresh Bhatnagar, Validation of Fatigue Failure Results of a Newly Designed Cementless Femoral Stem Based on Anthropometric Data of Indians, Proceedings of the ASME Verification and Validation Symposium (V&V2013), May 22-24, 2013, Las Vegas, Nevada, USA (Paper No. V&V2013-2219)
16. B. R. Rawal, Comparison of von-Mises stress and contact pressure for various combinations of knee prosthesis materials, 2nd International Conference on Advance Trends in Engg. & Technology (ICATET-2014), 18th - 19th April, 2014, at Arya College of Engineering & information Technology, Jaipur, India.
17. D. Maheshwari, M. Chouksey, B. R. Rawal, Modal analysis of disc brake and drum brake of a two wheeler vehicle, International Conference on Industrial, Mechanical and Production Engineering: Advances and Current Trends, Nov. 27-29, 2014 at MANIT, Bhopal.
18. Vivek Dhimole, D.P. Yadav, B.R. Rawal, "Structural and Thermal Analysis of Vacuum Chambers using Finite Element Method for Insertion Device In Indus-2 Storage Ring" International conference on emerging trends in electronics, electrical and mechanical engineering (ICEEME-PUNE), on 10th Jan. 2016, Pune, India.
19. B.R. Rawal, Amit Yadav, Vinod Pare, "Life estimation of knee joint prosthesis by combined effect of fatigue and wear" 3rd International

Conference on Innovations in Automation and Mechatronics Engineering, ICIAME 2016, 5-6 February 2016. Vallabh Vidyanagar, Gujarat, India.

20.S. K. Sharma, Vinod Pare, Manoj Chouksey, B.R. Rawal, “Numerical studies using full car model for combined primary and cabin suspension” 3rd International Conference on Innovations in Automation and Mechatronics Engineering, ICIAME 2016,5-6 February 2016, Vallabh Vidyanagar, Gujarat, India.

21. Rahul Patel, Manoj Chouksey, Abhinav Upadhyaya, B R Rawal, Modal Analysis of Rotor System Supported on Journal Bearings using ANSYS, Proceedings of 2nd International Conference on Emerging Trends in Mechanical Engineering, February 24th - 25th, 2017, G H Patel College of Engineering & Technology, V V Nagar, Gujarat, India

5. List of Conferences/Workshops/Seminars Organized

- 1. “Tribological Aspect in Mechanical Design” TEQIP-II sponsored organized at SGSITS, Indore during 24th- 28th March, 2014**
- 2. “Design and Control of Thermal Systems” TEQIP-II sponsored organized at SGSITS, Indore during 24th- 28th Jan, 2015**

6. Invited Lectures/Expert Talks/Chairmanships at Conferences