Short CV of Professor Bhrigu Nath Singh (IIT Kharagpur, India)

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Summary

Professor Bhrigu Nath Singh, Bachelor of Engineering in Civil Engineering (MNNIT Allahabad-erstwhile MLNREC), Master of Engineering in Analysis and Design (MNNIT Allahabad- erstwhile MLNREC) and PhD in Aerospace Engineering (IIT Kanpur), is a Full Professor (HAG), Former HAL Chair Professor (2018-21), Former Head of Aerospace Engineering Department (2013-16), Former Dean of HR (2016-2020), Former founder Director of three Section-8 companies of the Institute and former officiating Registrar (2018-2020) of IIT Kharagpur at the Indian Institute of Technology Kharagpur, India. Prof. Singh has been Secretary of BoG, Senate, Finance committee, B & WC and HR Committee during 2018-20 and played very important roles in the function of the Institute. Prof. Singh has been a member of 5-member IOE team of IIT Kharagpur along with the Director at national level and participated in the presentation of IOE proposal before the high powered Expert Committee of GOI. Prof. Singh has coordinated several external projects/reviews of IIT Kharagpur such as IOE, Viswajeet

project, Departmental peer review (2014), Institute peer review (2014), etc. Prof. Singh has more than 29 years of teaching and/or research experience in the institute of national importance in India and abroad. Professor Singh is working in the area of Aerospace Structures and Design, Solid Mechanics, Stress, Composite Structures, 3D Textile Composites, CNT, FGM, Damaged Mechanics, Aeroealsticity and its uncertainty quantification. Prof. Singh has developed several stochastic and deterministic mathematical models and its applications in the structural components made of laminated and smart composites and 3D textile composites and FGM in aerospace applications. Issues and concerns related to nonlinear problems in both random and deterministic environments in composite structures have been handled by Prof. Singh extensively. Prof. Singh is a fellow of IE (India) and **Associate Editor of Sadhana Journal of Springer** publication and Editor of International Journal of Aerospace System Engineering and was Guest Lead Editor for new Special Collection on Load Bearing Components in Composite Structures since 2017, 2016 and 2019-20 respectively. Prof. Singh was a member of Aerospace Resource Panel of the DRDO, New Delhi, India at national level during 2013-16. Prof Singh has been member in selection Committee/board of IISc, IITs, NITs and University for selection of faculty and Deputy Director and Registrar. Prof. Singh has coordinated several external projects/reviews of IIT Kharagpur such as IOE, Viswajeet project, Departmental peer review, Institute peer review, etc. Prof. was a member of IOE team along with the Director at national level and also took part in the presentation of IOE proposal before the high powered Expert Committee of GOI. Prof. Singh has so far **published 175 papers in the International Journals of repute such as AIAA J, ASME J, ASCE J, JSV, CM, CS, IJMS, IJNM etc** and more than **106 papers mostly in refereed International Conference proceedings/book chapters/ and one edited book** on Lecture notes in Mechanical Engineering (Springer)**. Prof. Singh has been listed in World's Top 2 % scientists-researchers brought out by Stanford University, USA and Elsevier publications in 2021. Prof. Singh is listed among top 10 researchers within IIT Kharagpur in terms of the journal publications in Engineering and among top 25 researchers in terms of journal publications across the disciplines at IIT Khargapur having faculty strength of around 850+ as per Scopus database.** He has organised so far five international conferences and edited their proceedings having mostly ISBN (ICACEM 2007, 2010, 2014, 2017 & 2021) in which about 250 delegates from India and abroad attended. Prof. Singh has

been organising Secretary of ICTACEM 2010, Conference Chair of ICTACEM 2014 and Technical Chair of ICTACEM 2017 respectively and Vice-chairman & Secretary of Joint Conference of ICTACEM, APCATS and AJSAE 2021 & AeSI. His **h-index and i-index are 41 and 116 respectively in Google scholar (GS), h-index is 37 in Scopus and citations more than 4970 in Google Scholars and 4145 in Scopus index**, which reflects the hard work and devotion towards research in the narrow field of aerospace engineering and other allied fields. He has **guided 19 Ph.D.**, **61 M. Tech** and **several B. Tech students** so far and currently supervising **7 Ph.D. students**. Prof. Singh has put forth his knowledge and ideas in some of the best Journals handling in the areas of aerospace (composite) and mechanical engineering and civil engineering as reviewer such as AIAA J, ASME J, ASCE, JSV, IJMS, CS, etc. Prof. Singh has been deeply involved in the research and development and carried out many such projects. He has been reviewers of many projects on the research and development of DST, DRDO, ISRO and SPARC. Prof. Singh has been also involved as Principal Investigator (PI) in handling several sponsored research projects of DRDO, ARDB, ISRO and development projects of DST valued about Rs. 4.5 Crores so far. Prof. Singh has been very instrumental in strengthening research facilities of the department as a faculty and Head of the Department. Prof Singh has also imparted training of research personnel in different fields of Aerospace Science & Technology and he was also involved in several high value amounting about Rs. 91 Lakhs academic trainings programme for HAL design and management trainees and one for Korean students as coordinator and principal coordinator. He is listed among Top researchers in the area of uncertainty quantification in Analysis and Design of composite structures and Composite Structures in Scopus/Web of Science and Aerospace Structures. His several research articles have been listed as most cited papers in the reputed Journals such as Finite elements in Analysis & Design and International Journal of Mechanical Sciences. Prof. Singh is well known for grooming under graduate and post graduate students to carry out research and build up their career through research route. Several students of Prof. Singh are working as faculty members in best Institutions/organisations including three in IITs, two in NITs, three in ISRO, 4 in DRDO, etc and also in very good private companies of world.