



भारतीय प्रौद्योगिकी संस्थान
रूड़की

सहारनपुर परिसर, भारत

INDIAN INSTITUTE OF TECHNOLOGY

ROORKEE

SAHARANPUR CAMPUS, INDIA

DEPARTMENT OF APPLIED SCIENCE &
ENGINEERING

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Dr. Millie Pant

Date: 23/08/2021

Professor

TO WHOM SO EVER IT MAY CONCERN

It is my pleasure to write a recommendation letter for Mr. Krishna Prasad, with whom I interacted this summer during April 2021. During this period, he pursued an internship in multi-objective methodology for multi-criteria engineering design, in the soft computing lab, IIT Roorkee, Saharanpur Campus. The work involved Multi-objective Optimization of various Engineering design problems using a computational method based on Human social evolution using MATLAB. Mr. prasad was able to grasp the fundamentals of the Multi-objective Evolutionary Algorithm and went on to develop a Modified Multi-Objective Imperialistic competitive algorithm from scratch by implementing new concepts like SBX crossover operator and Polynomial mutation in the Assimilation step to improve the performances of algorithms to reach the global optimum level. Also, he created the NSGA II algorithm from scratch to generate Non dominated solutions based on the fitness value of the objectives and implemented dynamic penalty method for solving constraint-based Multi-objective Engineering problems. Also, he did a comparative study for mechanical problems with different standard algorithms.

Among the students that I have interned with, Mr. prasad is one of those who stands out with his enthusiasm and focus. During this period, he demonstrated a good work ethic and interpersonal skill. We outlined a scope of work, and he successfully completed the work in the time required. He puts in extra hours as necessary to meet specific deadlines that I set. I would strongly recommend Mr. Prasad for position in your research program and do believe that he would turn out to be a valuable member. I'll wish him all the best in his future endeavors.

Please do not hesitate to call or email me if you have any further questions.

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