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01/25/2023

Dear Members of the Admission Committee,

It gives me great pleasure to write this letter to support the application of Mr. Kene Ezeifemeelu to your program. By the way of introduction, my name is Mohammed F. Daqaq, and I am currently a Global Network Professor and the Associate Dean of Engineering at New York University, Abu Dhabi (NYUAD) having joined the University in 2017 after a ten-year tenure at Clemson University, SC, USA. In my academic career, I received several honors and awards including the 2016 *C. D. Mote Jr. Early Career Award* for Research Excellence from the ASME Design Engineering Division; the 2012 *Gary Anderson Early Achievement Award* for Research Excellence in the field of Smart Materials and Structures from the ASME Aerospace Division; and the 2011 *CAREER Award* from the National Science Foundation, Dynamical Systems Program. I am a Fellow of the ASME and serve as a subject editor for the Journal Nonlinear Dynamics. I am a current member of *Mohammed Bin Rashed Academy* of Science.

I know Kene quite well because I have mentored him since his freshman year and taught him a course on the Modeling and Analysis of Dynamical Systems in Fall 2021. Kene is one of the brightest and most hardworking students I have had the pleasure to teach during my 17 years in Academia. He showed heart-felt interest in understanding every aspect of the course material, regularly submitted well-organized assignment solutions, and performed exceptionally well in his exams. He was the top student in the class, and I am continually impressed by his professionalism, intelligence, diligence, motivation, maturity, hard work, and discipline.

Upon completing the class, and because of his mastery of the subject material, I hired Kene to be a teaching assistant for the course. He has done an exceptionally well grading homework assignments and quizzes; always being punctual in providing grades while giving ample feedback to students. His ability to work as a teaching assistant while balancing his demanding course work and undergraduate research is very impressive especially when knowing that he maintained a GPA of 3.977/4, which is a very difficult undertaking at NYUAD.

In addition to being an excellent student, Kene has a passion for research in the area of Computational Mechanics. He worked under the mentorship of a faculty member in the Engineering Division to develop a computational code based on ANSYS FEA Software to determine the optimal material properties for structures with various loading and boundary conditions. For instance, this program can be used to calculate the optimal Modulus of Elasticity for members in a truss structure to produce a given deformation. Such information can then be utilized to determine appropriate materials and potential material treatments to enhance the specific properties. For his Capstone project, Kene is currently developing ANSYS Explicit Dynamics simulations to optimize the material and geometric properties of longitudinal beams in the crumple zones of cars.

Kene has a desire to make an impact in this world by devising engineering solutions that could help improve the quality of life for people in underserved communities. During his summer internship, which took place at Solar Ship Inc., an Aerospace and Aviation Company based in Toronto, Canada, Kene worked on the

development of a hybrid solar-powered aircraft for the provision of services such as internet connectivity and the delivery of critical cargo in remote regions. In this internship, Kene proposed utilizing the company's unmanned aerial vehicles to transport agricultural produce from points of surplus (i.e., remote agricultural communities) to points of need (i.e., bigger towns and cities) in the relatively rural regions of Arusha, Tanzania. The project required that he determines the optimal flight paths, taking into account the weather conditions and topography of the Arusha region.

In summary, Kene is one of those students that you can depend on. I am very confident that his academic talents and drive will make him a successful teacher and researcher. I believe that, with his excellent talents in organization, as well as his excellent communication and leadership skills, he is capable of tackling any challenging project in academia or industry. Kene will add significant value to any institution he decides to join. He accepts nothing less.

I recommend Kene to your program enthusiastically. Please, do not hesitate to contact me should you have any questions or concerns.

Mohammed F. Daqaq

A handwritten signature in black ink, appearing to read 'M. Daqaq', with several horizontal strokes underneath.