**UW-Madison Essay Ravi**

*Tell us why you decided to apply to the University of Wisconsin-Madison. In addition, please include why you are interested in studying the major(s) you have selected. If you selected undecided, please describe your areas of possible academic interest. (650 words)*

As I dawned upon the red pedestrian light, my vision caught a never-ending swarm of swerving 2- past the 4-wheelers as viscous fumes brushed over me before collected high up by the infamously grey Jakartan sky. After years of obliviousness, I started to question things.

*What will happen if things don’t change?*

This vigorous urgency has subconsciously churned my turbine-like brain that just wouldn’t stop generating energy for my increasingly imminent passion: helping earth.

This was when I discovered Mechanical Engineering. The study of *objects and systems in motion* has given me a purpose, in which it does not only combine mathematics, engineering physics, and chemistry to design and manufacture cutting-edge technology, but also breadth from various principles to ensure the machines around us are cost-efficient and ready for long-term use.

At UW-Madison, walking that extra mile means being at the forefront of innovation and research. Badgers are taught to pursue knowledge with integrity for excellence and purpose whilst respecting the natural environment and engaging with communities that goes beyond Wisconsin. The winning research-intensive plus innovation-driven combination is what excites me to studying Mechanical Engineering at UW-Madison.

What sets apart UW-Madison College of Engineering with others is its ability to prevail in every department through research. This day and age, education only sounds right when students are able to develop their technical skills from the help of outstanding research resources and interdisciplinary environments such as that of the Grainger Institute for Engineering, where the **collective** mindset of translating ideas into real-world solutions is nurtured and embraced.

I’m glad that UW-Madison emphasizes research for energy and sustainability. As a future engineer, I’d like to know that I’m at the helm of the latest technological advancements regarding clean energy. Fortunately, UW-Madison’s Engine Research Center provides the opportunity for me to be at that helm, where I’d be able to learn the fundamentals of engine combustion and pollutants formation in internal combustion engines. Research in this area is important for me as I aim to understand the impact of conventional engines and work my way towards innovating cleaner fuel solutions to power Jakarta’s bustling cars and motorbikes.

Furthermore, Engineering Badgers get the privilege to pursue their passion in vibrant student-run organizations. Among the 50+ organizations and institutions, I’m excited to apply my technical skills in Wisconsin Racing. To be involved in such a team is every mechanical engineer’s dream. I get to design, build, and test-run race cars which takes the fun in mechanical engineering to a whole new level. I also crave the competitive nature of the team’s participation in formula races. I hope to be a part of the Wisconsin Racing’s Electric team, designing and improving the efficacy of their race car’s battery as a fueling component. With that, I’d be able to foster my passion for sustainable fuel in vehicles and surround myself with talented engineers who strive to challenge their knowledge outside of the classroom.

When I think about studying mechanical engineering, I think about the impact I can bring towards communities across the globe. That is why thinking about the possibility to provide an important link for the UW-Madison Engineering community to access water-vulnerable regions of Indonesia excites me. Aside from collaborating with fellow students and professors, I believe I could help liaise with governmental bodies and/or local non-profits to build water treatment facilities in regions that lack quality infrastructure, such as remote islands near Papua or rural areas just outside of Jakarta. Thankfully, service organizations like UW-Madison’s Engineering Without Borders could help me do just that.

As my mind warped back to my lovely capital – alerted by the ringing pedestrian light which just turned green – I walked past what was the last streak of sunset, hoping that I can come out of UW-Madison as one of many purposeful engineers in sustaining the beauty of our planet Earth: one to be enjoyed and celebrated by generations to come.