



Zainuddin Mat Isa

Please elaborate on your educational background.

I completed my secondary school education at the Royal Military College (RMC), Sungai Besi. I earned my Bachelor of Electrical Engineering from Universiti Teknologi Malaysia and Masters in Electrical Engineering from Kolej Universiti Teknikal Kebangsaan Malaysia in 2001 and 2006 respectively.

How do you manage yourself with administration, lecturing and research ?

I learnt one good value during my studies at RMC - cooperation. What does it mean? It means that wherever we are, we have to work together as a team. We as human beings are unable to carry out all tasks on our own. We need to work with people around us so that whatever we do or accomplish, people around us will also feel that they have similar responsibilities and have achieved similar benefits as we have. This is the secret to managing myself, my time and responsibilities. From the administrative viewpoint, I am always working closely with my exco members. We constantly conduct discussions before completing our tasks. Besides that, we have also organised smaller working committees which consist of school members working collectively and carrying out the tasks given. In research, my friends and I have formed a research group which is known as the Power Electronics and Electrical Energy Research Group or PE2R which functions as a small cluster or subcluster. I also allocate 4 to 6 hours per week for my research.

What are your research interests and why these are important fields of study?

My interests are in Power Electronics and Alternative Energy - with special emphasis on solar and fuel cell alternative energy schemes. Presently, the demand for new clean sources of energy or green energy has increased tremendously. In RMK 10, the Malaysian government has allocated many incentives and funds to boost research in these areas and also in areas that use renewable energy sources. I view these as golden opportunities to promote local prowess and technologies, as well as for my career advancement.

To me, every successful achievement is something to be proud of, no matter how big or how small it is. However, one of my greatest achievements was being able to sign a Memorandum of Agreement (MoA) with a private establishment that will take two of our clusters' products and commercialize them, earlier this year.

Any plans for commercialization or patenting your products? What are the constrains that you have faced during commercializing or patenting these products?

My research partners and I, through UniMAP, have signed an MoA with a private establishment that will commercialize two of our products, namely, Buck & Boost Teaching Module and Single Phase Inverter Training Kit. It is our hope and best interest that these products will be made available in the local market either at the end of this year or early next year. Throughout the process of getting to this point, we were faced with 4 major constrains; designing a marketable product, budgeting, searching for a suitable company and commitment. Thankfully, with the continuous support, encouragement and advice from our Deputy Vice Chancellor (Research and Innovation) Prof Zul Azhar, R & D and SME units and members of the School, we have been able to overcome the aforementioned constraints.

What are your plans for future achievement in research? How will these future plans contribute to the community at large?

My future plan is to build a solar farm in Perlis. If this project is successful, the local community will benefit tremendously from it, in the form of reduced tariff burden as well as in energy export capabilities. Solar energy is one of the cheapest source of energy available in this planet. Why? Solar energy is an almost-free (manufacturing costs of the panels) energy source since the electricity is generated from the sun. This project also will lead to new opportunities in research activities as well as in power management, distribution and costing.

What advice would you like to give to the young and new lecturers at UniMAP?

As an academician, a major part of our contribution to the academic world is via research. In my opinion, being aware of the the benefits of research is one of the ways to motivate ourselves. Research is a process where one is able to increase one's knowledge and skills to higher levels. Research opens up many opportunities. It enables a researcher to optimize his or her skills and expertise, explore new areas, create opportunities to establish networks or linkages, contribute to the surrounding society and most importantly it is the stepping stone to success.

