



Dr. Zarina Zakaria is highly motivated and dedicated towards her passion in bioprocess engineering research.



Dr. Zarina Zakaria

Please elaborate on your educational background.

I was born in Sungai Petani, Kedah. However, my secondary education was in a boarding school in Klang, Selangor. I earned my bachelor's degree in Botany in 1995 from Universiti Malaya. Later in 1998, I obtained a master's degree from Universiti Putra Malaysia and a PhD in Biotechnology in 2004 from Universiti Sains Malaysia.

What is your specific field of specialization? And why you chose this field?

My field of specialization is in Plant Tissue Culture. This field of study falls under Biotechnology. I have always been fascinated with living life especially the plant kingdom. By studying God's creation, indirectly I feel close to God. By definition, biotechnology is the use of living organisms to carry out defined chemical processors for industrial or commercial application. It is a fast growing area which contributes to human well being and wealth.

How will it benefit society?

It is well known that biotechnology has had a major impact to world development, especially in developing countries. We can optimize the assets we have, whether they are plants, animals or microorganisms, using various biotechnology techniques. Biotechnology has also fulfilled human needs and improves the quality of life. Some conventional methods are not suitable to be used anymore and therefore biotechnology offers more modern and viable methods.

How many years have you been active in research?

I started my teaching career in 2003 and only a year later I had the opportunity to be active in research. That counts to 4 years.

What about teaching in the university?

Teaching is an interesting career where you can deliver knowledge in your field of expertise. It is a challenging process that involves various skills to ensure that knowledge is transferable and understandable. Involvement in research activities will make teaching a more enjoyable process where you can explain in depth that particular subject based on your experience in laboratory or in site.

How do you mix research and teaching? Which is more important to you?

Actually both research and teaching are important for those involved in the academia. Preferably the teaching subject should tally with the lecturers' expertise and field of research. Findings and knowledge through research may help an academician deliver better lectures

Has your tenure at uniMAP been fruitful, research wise?

I am still in the early stages of research and it is too early to have a substantial impact. However I can see the improvement with the support of Research and Development unit and especially the Dean of Bioprocess Engineering and the staff

What do you think would presently enhance your research activities?

There are many contributing factors including grants, students, support from colleges and UniMAP's administration. However the most important is how far we understand our responsibility and put passion on research.

Our country's agenda also plays an important role in determining the pathway for research. As an example, nowadays, biotechnology is considered a driver to boost the national economy.

Although there are many female graduates presently in Malaysia, there is still a low number of female researchers. What are your thoughts on this? And how do we improve this situation?

For researchers, there is no specific duration of time that should be spent in the laboratory and that is depending on workload. This situation is a drawback for female researchers, especially those with families. Actually, one has to manage time wisely and give full attention on experiments during office hours. It is unavoidable if we still have to focus on research work after office hours in terms of writing and reading. Female researchers should think of what and how much they can contribute with their limited time instead of totally rejecting the idea of doing research.

How would UniMAP benefit from your research and what would be your advice for young female researchers?

Research is the key to innovation. Innovation results in a product. Through tissue culture techniques, we can produce various beneficial products in various fields such as pharmaceuticals, foods and enzymes. Those research activities will produce human capital, publications, and awards that are important in grading the university and more importantly the person. One must think that one should contribute something no matter how small or big it is. Knowledge obtained without research activities has no contributions at all. Research also keeps one's mind working and eventually helps in upgrading one's level of thinking indirectly.