

Syed Alwee Aljunid Syed Junid

Please give us a rundown of your background.

I had been with the Ministry of Human Resource for 14 years before I enrolled for a undergraduate course in UPM. I graduated in 2001 with a B.Eng. Computers and Communications Systems (First Class Honours). Then I pursued a Ph.D., from UPM also, and graduated in 2005. Now I am here.



It is understood that you had pursued your doctorate under the supervision of Dr. Khazani, who specializes in fibre optics and optical telecommunication systems. Given that, did you further specialize in a particular sub-field or concentrated on the major theme?

My field of specialization is Optical Code Division Multiple Access (OCDMA) which differs from the wireless CDMA by transmission medium only. Optical communications itself is a vast field which involves a multitude of disciplines such as RF electronics, coding, transmission, photonics, materials, packaging and others. OCDMA deals with how information is disassembled, sent, received and reassembled, with high efficiency. Ultimately it is about information security, economy and its management.

Based on your publications, your field of research is more towards optical network and information transmission. Please describe the importance of this for the optical telecommunications industry. In optical transmission, there are various traditional techniques to transmit information based on mathematical principles that were developed for traditional forms of

Assoc. Prof Dr. Syed Alwee Aljunid has been with KUKUM for over a year and is presently the Deputy Dean (Academic & Research) at his school. Dr. Syed Alwee will be spearheading a team of researchers on optical communication, a field he holds dearly to.



communications. I have tried to improve the mathematics, hence the communications' performance specifically for the optical region. Specifically, the use of codes to disseminate information has tremendous implications for hardware construction in terms of bandwidths. Hence the use of efficient code that performs satisfactorily without compromising hardware cost is much sought after.

What prompted you to choose the optics field?

Based on the current research and development status as well as the business world, it seems like electronics is saturated and there is an exodus of professionals towards optics worldwide. Although the "bubble" burst in the late 90's, this was not caused by the optics field but by overzealous programmers who had caused internet company-mushrooms. Optics itself is an enabling technology with applications in almost every engineering discipline.

To date, do you have a personal best achievement?

I was chosen as best engineering student in 2001, on my graduation. I would like to feel that again but this time in research, via publications.

How would you like to further improve your R&D activities?

R&D activities can only be improved with good facilities and hardworking people. Facilities can be put up whenever funds are available but human resource is much more difficult, to find as well as handle. So if there is anything to improve my R&D activities, it would be a group of optics people with passion for R&D.

It is understood that you could be the only optical communications person of KUKUM. Are you putting together a team towards a

"KUKUM optical communications group"?

What is your research focus now?

Yes, I am putting together a team but for OCDMA. The C&C school has got excellent facilities and it is for researchers to exploit. The focus of the group would be to further develop the double weight (DW) coding system or OCDMA since there is much room for improvement.

Based on your experience, are there any differences in research grade laboratories between UPM and KUKUM?

Certainly there are vast differences between both university laboratories. KUKUM, being only 4 years old, has much room to grow.

Your CV shows a number of publications in highly reputable journals. Given a choice between conference proceedings and "impact factor" journals, which would you choose? And why?

High impact journals would be my only choice. Conference proceedings do not carry much weight, where 5 or 10 conference proceedings are equivalent to one journal. However, publishing more proceedings does not equal more journals since these will be grouped as one. To the best of my knowledge, journals are the only way to improve our research standard, and our university's standing directly.

What would you say to younger peers?

Research, research and more research. It is the only path to success, knowledge gain and technological gains for Malaysia. It is also the only way where we, as lecturers, can impart state of the art knowledge to our students. Books are for reference only. They are history in any form. Research, on the other hand, enables us to add on the 'history'.