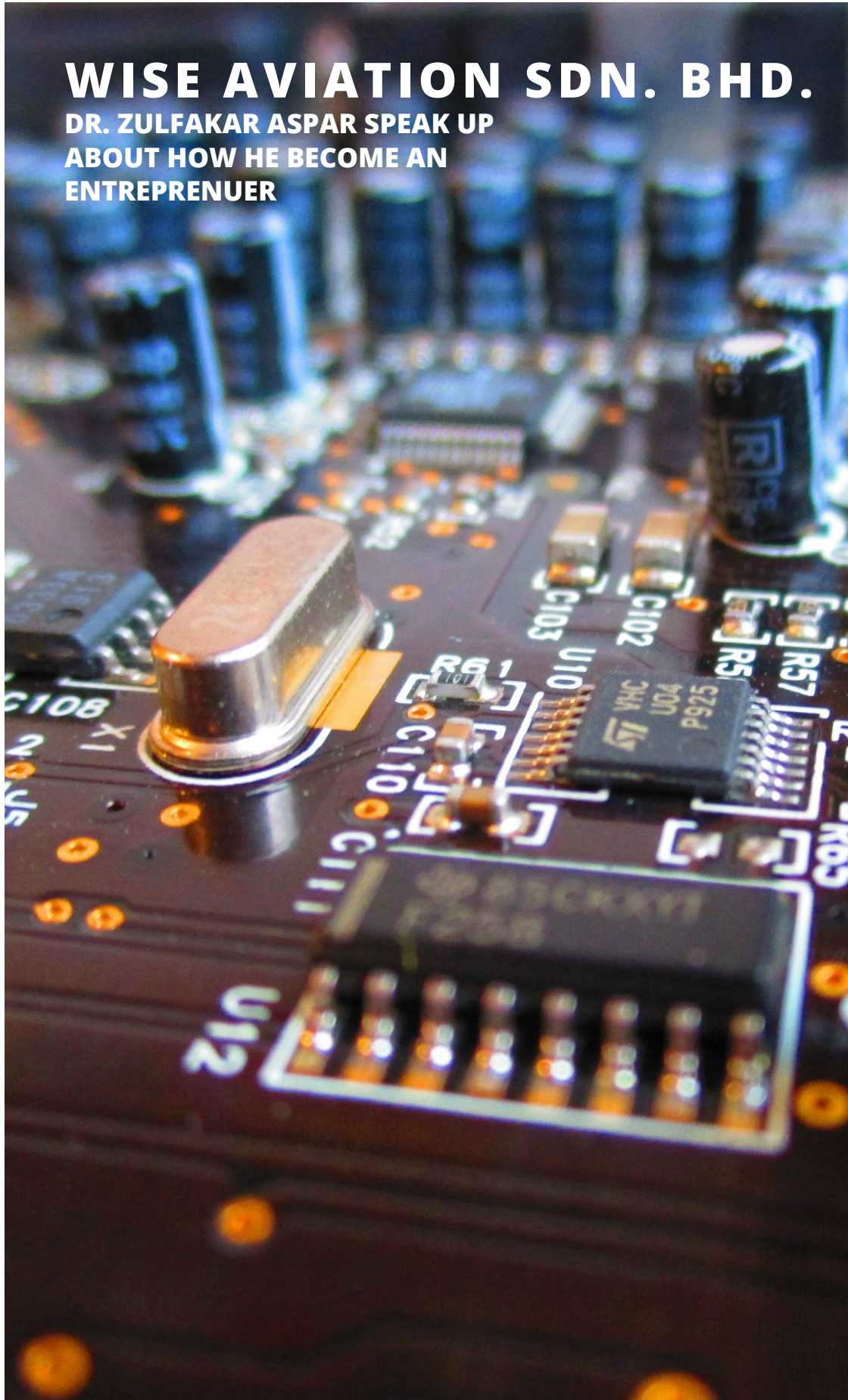


JOURNAL

WISE AVIATION SDN. BHD.
DR. ZULFAKAR ASPAR SPEAK UP
ABOUT HOW HE BECOME AN
ENTREPRENUER



9812387

Issue # 4 | Vol. 1 | APRIL 2020



ENTREPRENEUR PROFILE

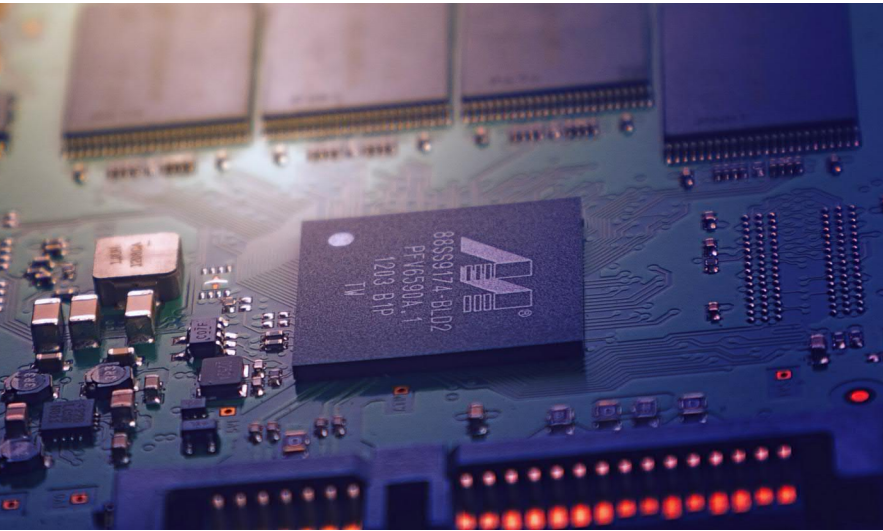
Dr. Zulfakar bin Aspar completed his degree with Bachelor of Science in Electrical Engineering from Case Western Reserve University (1994), obtained his master in separation process from Universiti Teknologi Malaysia (1999) and also pass his PhD viva on 2nd May 2017 in Electrical Engineering(Electronic). He became a lecturer at the Department of Microelectronic and Computer Engineering, Faculty of Electrical Engineering, Univesiti Teknologi Malaysia (UTM).

He specialized in PLC based designs, designing PLC from scratch, Integrated Circuit design using FPGA, and system modelling using Petri Nets. He does both hardware (microcontroller, FPGA) and software (Microsoft based) development. He used to work with MIMOS Berhad as a senior design engineer (IC design consultant), as a consultant for Wise Path Sdn. Bhd. and given trusted to be the project leader Reverse engineer and Restoration of Variable Message Signage (VMS) from UTM for Perbadanan Putrajaya.

With all the things, Dr. Zulfakar registered a company, Wise Aviation Sdn. Bhd. Although he is a lecturer, his past experience in delivering industrial solutions to various type of companies helps people to quickly identify the specific needs and provide the relevant solution. He has a dedicated team to solve any specific solution. While their extensive industry collaboration helps to provide solution in advance and ensure continuous profit for the collaborators.

COMPANY BACKGROUND

Wise Aviation Sdn. Bhd. is a development and research in electronic, machinery and software development. The main activities are to solve industry problem especially in Malaysia product development and if necessary only then they do research.



HOW THE BUSINESS STARTED?

I was new lecturer and there wasn't have any business grant at that time. I really love to do experiment using any tools in the lab such as controller, FPGA including software because at that time there no fund if you want to do research.

One day in 2000, one of my friend in industry ask me for help and then I charge him very small amount at only RM500. At that time, I realized that I can do more project out of university. I doesn't need to depends on any research grant but I just need to get more knowledge that not in the book. Sometimes problem can be complicated, but when we think a lot there are multidiscipline in nature. Industry don't really beat multidisciplinary.

I focus on printed circuit board industry first because I works in that kind of company before. I also tries to find fund from University Research and they just give me almost RM2000 because at that time University don't have enough money. The proposal that I send need to rectify but until 5 times I still can't get the fund. So in 2004, I decides to sell product to company for RM50000. From there I can generate more money.

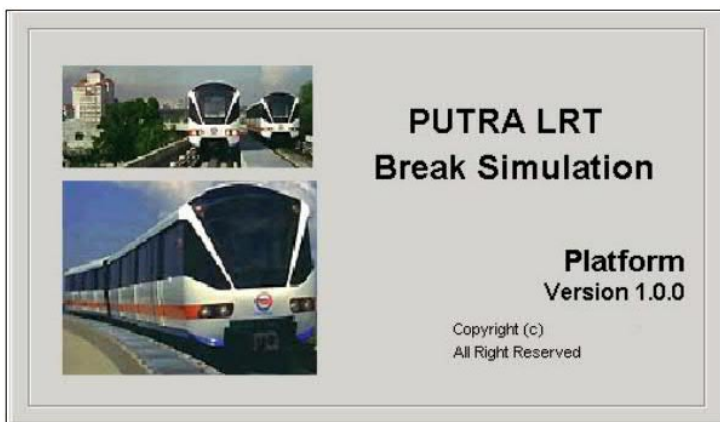


Some of the products and services

1. Variable Message Signage at Perbadanan Putrajaya, Putrajaya worth RM500,000.

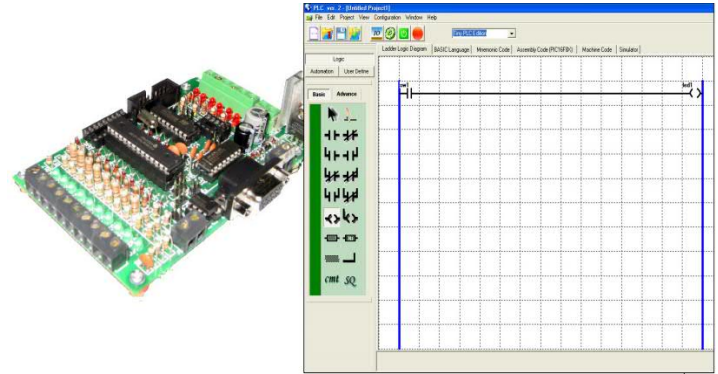


2. Safety simulator for Putra LRT



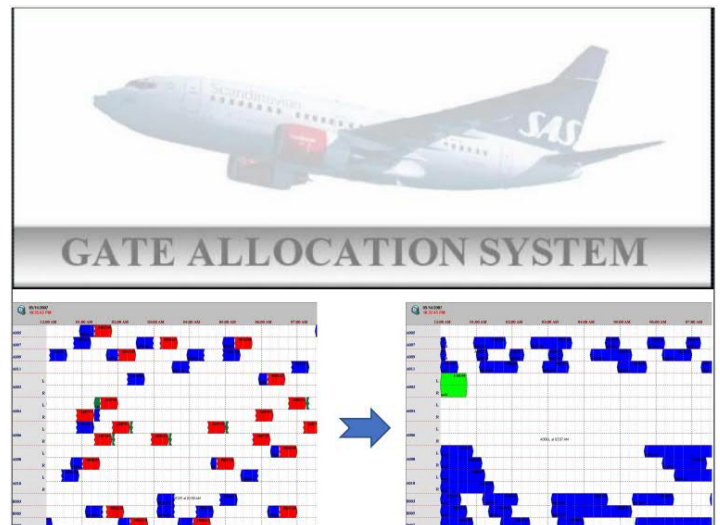
This simulation is used to test safety features available on every Putra LRT platforms. It prevent any accidental human fall on the track while the cars are coming into the station.

3. PLC and Compiler



Local made PLC which was also being used in VMS putrajaya in 2008. New PLC board hardware and Ladder Logic Diagram compiler.

4. Gate Allocation System or GAS



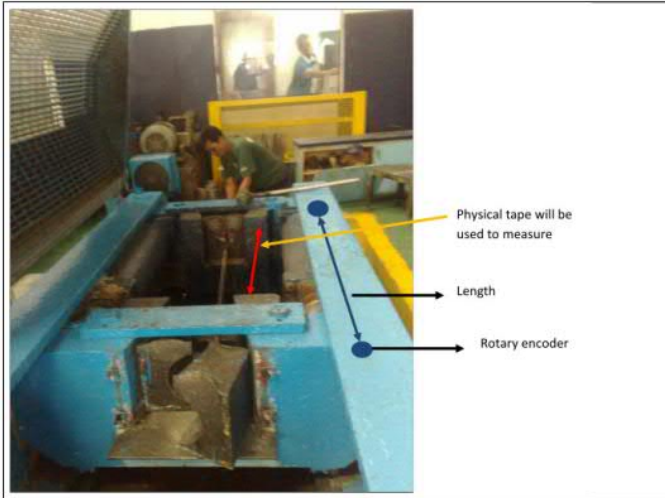
This is an essential system to manage the parking schedule of aircrafts in a large airport. The system was successfully tested for KLIA in 2010.

5. Manpower supply for Oil & Gas companies



Providing high skills workers for oil and gas company. This is lotte or previously known Titan.

6. Various Load test machine: 100 tonne, 200 tonne, and 1000 tonne



This 1000 tonne load test machine is manually recorded. The team was assigned to do the data collection and report generation automatically.

7. Relaxation Test machine



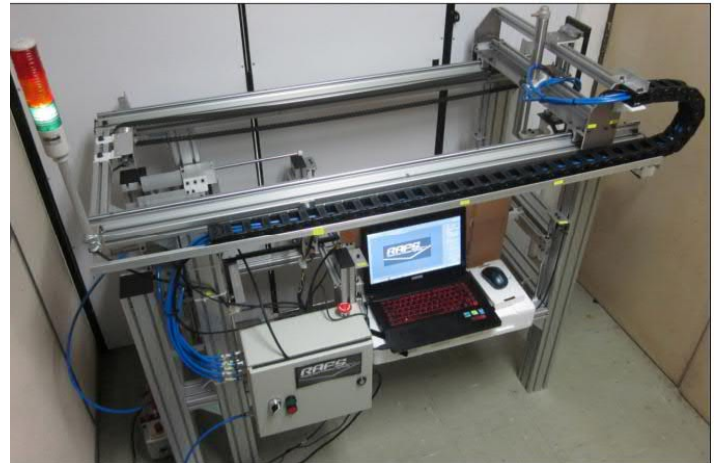
This is a 200 tonne relaxation machine. This machine was not interfaced with any computer. The team was assigned to do the data collection and report generation automatically.

8. LED Full Color Board



The research team won Dream Catcher innovation design competition Altera section in 2014 by designing the LED full color board display and LED full color controller using FPGA.

9. Pick and Place Robot Arm



This robot is used to pick up material to be tested on the left to feed into a testing machine on the right.

10. Relaxation Test machine



This is a refurbished work to replace the controller of the robot arm. The robot has 5 axes or freedom movement.

TIPS TO BE AN ENTREPRENEUR

TALENT THAT HELP IN BUSINESS?

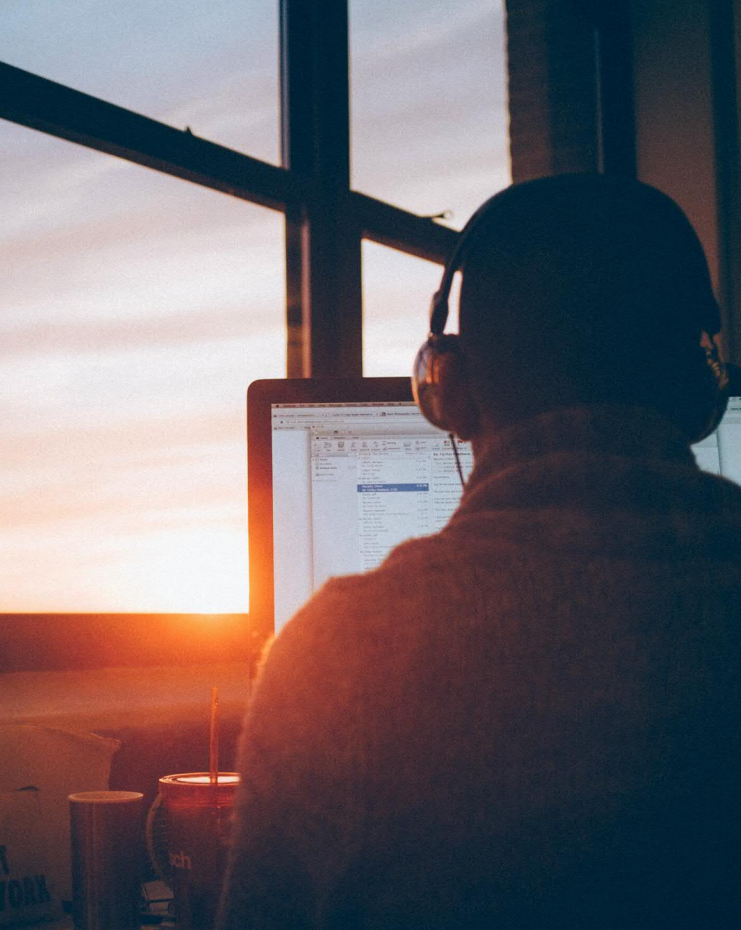
- In industry, sometimes people cannot be too picky. Of course my basic knowledge is electronic but sometimes they also ask you on electrical, mechanical and that's how I know to software development because everything is integrated. People cannot deal with one area only. Sometimes I deals with chemical engineer in business, so I need to read the basic knowledge in that area and have a discussion to get the solution.

MOST CHARACTERISTIC TO RUN A BUSINESS?

- Able to work independent, unlike in classroom where lecturer and friend monitor your work. But when you deal in industry, they only give you a date line. How you want to complete it progressively is up to you. That's why, everyone must be independent. For research will get funding for 2 years or 1 years but in industry they just said, can you do this in 30 days. If you can, you can get the job.

PROBLEMS WHEN START BUSINESS?

- I don't worry about financial. Of course when we start a business, there are not lots of money in the pocket. The most difficult thing is technical problems. Especially when you are new and young engineer, your experience not in that specific industry. You have to learn as quickly as possible in order to understand the problem and provide the solution. For me, financial is secondary problem to start a business. If there is no solution, you have to provide. At the end, no matter how much money you have, you still cannot solve it if you don't know the problems.





MARKETING TECHNIQUE?

- You need to spend time with the industry. Spend time to visit them like having “Teh Tarik” together and make friend with people. I doesn't really have much time to do this. It quite difficult for me to meet my friends from KL because there is no grant for me travel to Kuala Lumpur. This is something that you must to do if you do marketing.

ANY SPECIAL TRAINING?

- When I start my business, there is no such thing as entrepreneurship training in UTM not even for students. I learned by my own but I was lucky in 2008 because I gets funding form Multimedia Development Cooperation for RM150 000. Not much money but the fund can develop my product. Not only fund, they also provide me a lot of training without any fees. The RM150 000 that is for me to do whatever I wants and to pay manpower, to develop product and so on. To attend the short courses, I doesn't to pay anything. Most of the training is very good training. For example, one of the short courses known as Blue Ocean Strategy. I attends somewhere in 2010 and the good things is nobody in UTM know about it. UTM approach Blue Ocean Strategy in 2014. So that the good things when you deal with industry, you are more ahead from other. It's not technical but its more on business, marketing and how to differentiate yourself from other.



FUTURE PLAN

Cutting edge solution especially Advance Programmable Logic Controller, specialized sensors, aircraft parking schedule in a large airport solution, radar, automation machinery and much more. Retirement: I can still do all of these even after retirement since most of the technology involved are in-house developed. But, the ultimate retirement activity is my property investment.

ADVICE AND SUGGESTION TO BE A SUCCESSFUL PERSON

Learn technology ASAP – as soon as possible, and as much as you can (AMAC) in the younger days, learn thoroughly the industry you like: the advantages, the problems, and opportunities, but the most important thing as you grow, it is important to be surrounded with like minded people especially who can complement your work. Don't use all the profits for luxury; reinvest them; I divided loosely into three parts which are for personal use, R&D and property investment.

EDITORS



RAHIM AIDOL



JIBRAN



TALHA SOHAIL



NUR AIN HANANI



MAIZATUL MAHIZA

INTERVIEW SESSION

