

University-Industry Smart Partnership in Enhancing Aviation Technology Education

Mohd Fakhurulrazi A. Abdullah*, Ir. Ahmad Jais Alias

*Universiti Kuala Lumpur Malaysian Institute of Aviation Technology, Kampus UniKL-MIAT,
Lot 2891, Jalan Jenderam Hulu, 43800 Dengkil, Selangor, MALAYSIA.*

Abstract

One of the UniKL-MIAT strength in offering Aviation Technology Education to its students is the support from the industry. The support is in term of offering live and practical experiences to the staffs and students. The staffs and students are regularly sent to the industry for the OJT (On-the Job Training), industrial attachments, secondments or technology training. By doing this, the staffs and students will get true exposure of the live aircraft, the aviation industry environments and culture, and safety procedures. The partnership also includes consultation activities between the university lecturers and the aviation industry experts, and jointly organized research works, new technology trainings and seminars. The university will provide the intellectual inputs, while the industry will provide the materials, equipments, facilities and supports. The collaboration is a win-win situation, and benefits both parties and the nation.

Keywords: University-Industry Partnership; Aviation

1. Introduction

University education should be tailored to the industry needs, in order for the university to remain relevant in the globalisation era. To cope with the industrial demands, more universities are looking for partners among the key industry player. The main objective is to get the industry involvement in developing the university curriculum, and thus making the program offered attractive and suitable to the industry requirements. Industry support in term of funding, expert consultation, technology provider and certification are also considered to be crucial. The other avenue for the partnership is in the internship or industrial attachment for the students.

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2. Industry Partnership for Aviation Training

As mentioned earlier, industry partnership is very crucial in aviation training, especially if the program is tailored into producing professional certification personnels.

UniKL-MIAT is known for producing the Aircraft Maintenance Certificate and Diploma to its graduates. The certificate and diploma, will qualify the graduates to apply for the Licence Aircraft Engineer, provided they fulfill the industrial practical experiences and other industrial related requirements sets by the authority.

In order to fulfil the industry requirements, meaning UniKL-MIAT is required to send its students for the On-the-Job-Training (OJT) in the industrial workplaces. The students should also be exposed to works done on live aircraft. Live aircraft means aircraft that is still in service and airworthy (safe to fly). Both the requirements left UniKL-MIAT with no other choice but to look for industrial partners.

Industry partnership can also be understood for doing collaborative research and development (R&D)

* Corresponding author. Email: ahmadjais@miat.com.my

projects, mutual staffs development program, and training and short course.

Marrying the two sides – industry and academic, is not an easy task, since each of them has differences in focus, customers, stakeholders and culture. It need certain level of understanding between top management of the sides, in order for the discussion to be conducted in the same language, frequency and wavelength. We are blessed since most of the top management in UniKL-MIAT now come from the industry.

3. Types of UniKL MIAT – Industry Partnership for Academic Development

The UniKL-MIAT partnership can be elaborated according to the following items:

3.1 Transfer of Technology

The partnership was done during the early stage of setting up the institute. MARA as the owner of the institute, invited Northrop Rice USA, Inc. to be the technology provider for the institute. Thus the original name of the institute is MARA Northrop Rice Institute (MNRI). The partnership brought in the technology, equipments, syllabus, consultancies and staff trainings to MNRI, that later on developed into what is UniKL-MIAT today [1]

3.2 Staffs and Students Development Program

The second mode of industrial partnership is through the human capital development. UniKL-MIAT has few staffs and students development program running.

- a) Northrop Rice University

The University offers staffs training in

 - i) Federal Aviation Authority Aircraft Mechanics Licence, for the first group of lecturers intake with degree in engineering.
 - ii) Bachelor of Science in Aircraft Maintenance Engineering Technology (BSAMET), to selected pioneering graduates from MNRI, to pursue for an academic degree (after obtaining their professional certificate).

Both the groups are working as lecturers and instructors to UniKL-MIAT students.
- b) Moscow Aviation Institute

Collaboration with this prestigious institute is in training for the Young Lecturer Scheme for the Excellent Students from MRSM (Maktab Rendah Sains MARA), to do one year preparatory study in aviation degree at UniKL-MIAT, and then continue another 5 years to obtain the Diplom from the

Russian university. Staff attachments and joint research activities are also in the discussion stage.

- c) Post-Graduate Study

Currently, UniKL-MIAT is upgrading its lecturers' academic qualification to the level of Master. There is a group of 13 staffs doing Master in Aerospace Technology with the Institut Teknologi Bandung (ITB). The program is a customised in-house training program, funded by MARA, where the professors and lecturers from ITB will travel to UniKL-MIAT and conducted the classes in modular system.

One of our lecturers has been awarded the scholarship by Institut Aéronautique et Spatial (IAS), Toulouse, France to do her Master over there. While few others are doing their study in the local universities. All this effort will generate long term partnership with the organisations involved.
- d) Professional Licence in Australia

Another partnership which is going to materialise soon is the sending of 15 Young Lecturer Scheme participants to Sydney, Australia. They are a group of engineering graduates that have passed the selection process, and will be sponsored to do training towards obtaining Licence in Aircraft Maintenance Engineer from the Australian Aviation Authority [2]. The success of this group will further strengthen UniKL-MIAT standing in aviation industry.
- e) Royal Aeronautical Society

Another bold step taken by UniKL-MIAT is to obtain the recognition as the Corporate Member of the Royal Aeronautical Society (RAeS), London. The inaugural evening lecture and relaunching of the Society Malaysian Branch was held last August. Being the Corporate Member, UniKL-MIAT will benefit from the society's long history of excellence in aerospace and aviation technology [3].

4. UniKL MIAT – Industry Partnership for Skills Training and Development

The partnership with local aviation industry mainly focused on skills training, industrial attachments for the staffs, on-the-job-training (OJT) for the students, and real live aircraft practical projects and researches.

4.1 Memorandum of Understanding (MoU)

- a) Grouptech Sdn. Bhd.

UniKL-MIAT has entered into few MoUs with the aviation industries. One of it is Grouptech Sdn Bhd, the operator of Transmile Airlines. The MoU allows UniKL-MIAT to send students for OJT and practical

training with live aircraft, additional tutorials and lectures by the company engineers. It also paves the path for future infrastructure and technical developments that will benefit both parties [4].

b) Malaysia Airlines System (MAS)

The cooperation and collaboration with MAS has long been established. MAS has been the top potential employer for our students. For the past 3 years, MAS has sent their group of apprentice in aircraft mechanics to be trained by UniKL-MIAT. The apprentices will follow UniKL-MIAT certificate program training, and then will continue for their job with MAS. MAS also continue to be our major OJT provider for students.

c) Airod

Airod has offered us to be their partner in the aircraft maintenance industry, or specifically the MRO (maintenance, repair, overhaul). They are considering UniKL-MIAT as partner in several outsource jobs. This will be a win-win deal, since Airod will benefit from the expertise of UniKL-MIAT, while the projects will create more avenues for training with live aircraft to the students.

d) Other players

There are also other industry players in the partnership, such as Berjaya Air, Air Asia, Police Air Wing, and Fire Department Air Services etc.

[2] Background of Universiti Kuala Lumpur, UniKL Website, www.unikl.edu.my, on-line 13 Sept 2005.

[3] The Royal Aeronautical Society, www.aerosociety.com.

[4] Memorandum of Understanding UniKL-MIAT – Grouptech Sdn.Bhd, signed on 27th April 2005.

[5] Ahmad Jais Alias and Ahmad Zahir Mokhtar, “Anjakan Paradigma di dalam Pendidikan Kejuruteraan Penerbangan di Malaysia – Sumbangan UniKL-MIAT”, *Jurnal Pemikir*, Utusan Karya Sdn.Bhd., 2005.

Biographical information

Mr. MOHD FAKRULRAZI A. ABDULLAH is a licensed Aircraft Engineer, currently holding the position of Head, Academic Services, UniKL-MIAT. The post requires him to overview the smooth running of training program in the institute.

Ir. AHMAD JAIS ALIAS started his career as an Engineer with Sony Video (M) Sdn. Bhd. for 4 years, an experience which qualifies him to attain the Professional Engineer title. Then he joined Universiti Kebangsaan Malaysia as lecturer for ten years, before recently moved to Universiti Kuala Lumpur. UniKL is known for its industrial-based fields of study, and he is now sharing his experience to train the future aviation industry workforces.

5. Conclusion

To gain confidence from the key industry players is not an easy task. We have to struggle in fulfilling all the requirements by the authority, both aviation and academic [5].

The approval from DCA for UniKL-MIAT to be the aviation training organisation is in the final stage, while the LAN audit has concluded.

The partnership with industry is in good shape, but the room for improvement is always there. Being an aviation training institute, we are trained to be brave and confident in taking the risk, and with this spirit, we will fly high as the prestigious aviation training institute in the region.

References

[1] Ahmad Jais Alias and Shahrul Ahmad Shah, “Transfer of Technology in Aviation Training – MIAT Experience”, National Conference on Management of Technology and Technological Entrepreneurship (MOTTE), UTM, 2005.