Regional Forum on “Addressing the Challenges to Drive the Implementation of Successful Industry 4.0 Projects”

SEAMEO VOCTECH Regional Centre convened a half day regional forum on “Addressing the Challenges to Drive the Implementation of Successful Industry 4.0 Projects” on 20 February 2019 at SEAMEO VOCTECH.

The forum focuses on the implementation of Industry 4.0 includes the automation and interoperation in the form of a smart factory with Cyber Physical Systems, Internet of Things and Big Data being processed in real time using cloud computing. Therefore, traditional project management strategies need to be transformed in the fourth industrialization era to account for a highly complex and diverse task profile. This forum will explore the importance of industry 4.0 project management in detail. It will develop the necessary requirements for the successful implementation of the fourth industrial revolution.

Dr. Abbes Sebihi, Senior Technical Specialist of SEAMEO VOCTECH moderated the forum, who was also the Course Co-ordinate for the Regional Training Programme, which was held back to back with the Forum.

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The Fiscal Year 2018-2019 marks the final year of implementation of SEAMEO VOCTECH Regional Centre’s 5th Five-Year Development Plan (FYDP). This edition of January—June 2019 newsletter, includes the activities that the Centre undertook during the 2nd halfway point of the fiscal year 2018-2019.

The remaining months of fiscal year 2018-2019 saw the completion of several training programmes. This includes the Regional and In-Country Training Programmes. A noteworthy activity was the conduct of regional training programme during the remaining months of the fiscal year 2018/2019. On our commitment to our international partners, the Centre’s representatives were sent to participate and/or deliver papers to the conferences they have organised.

On the provision of staff upgrading programmes to our clients, from January to June 2019, the Centre was able to deliver five Regional Training Programme, three regional forums and an In-Country Training Programme. Several staff upgrading programmes have already been implemented in this fiscal year through the support of our stakeholders and partners.

DR HJ MOHD ZAMRI BIN HJ MOHD SABLI
Centre Director
SEAMEO VOCTECH Regional Centre
Regional Forum
20 February 2019
@ SEAMEO VOCTECH

The first of the four invited speakers was Chief Executive Officer at Network Integrity Assurance Technologies (NiAT), Lim Ming Soon. His presentation highlighted technology, particularly in the telecommunications industry and how it has changed the way it does business and operates due to a paradigm shift the way people communicate.

The second speaker was Education Consultant at Lucas-Nuelle GmbH, Peter Heinrich. His presentation focused on the forum’s theme, with a particular interest on the implementation of educational projects.

Country Manager, Siemens Pte Ltd, Brunei Darussalam and Lead, Power and Gas, Siemens Pte Ltd Singapore Kamaljit Singh Gill discussed the future of manufacturing in the world of Industry 4.0.

SEAMEO VOCTECH Deputy Director for Professional Affairs, Dr. Paryono presented on ‘Managing TVET in the era of Industry 4.0: Issues, Challenges and Responses’.

Conservation in the Tropics Flagship Programme in Collaboration with SEAMEO VOCTECH, MOE Brunei, SEAMEO SPAFA, and RDMUCH
28—31 January 2019

During the 2nd SEAMEO Youth Leadership Forum, organised by SEAMEO SPAFA in 2016, a participant from Brunei raised on the concerns about fire threats to the community at the “water village” in Brunei Darussalam. The location offers a unique challenge because of its feature as a traditional settlement in stilt and its vulnerability to both natural and man-made hazards. Fire can be an imminent threat because wood is a prevalent construction material. Meanwhile, with its location at the mouth of the Brunei River that connects to the South Pacific Ocean, Kampong Ayer should be studied to find out where it is impacted by the rising sea level and climate change.

Therefore, in collaboration with SEAMEO VOCTECH, MOE Brunei, RDMUCH, SEAMEO SPAFA held a half-day workshop as part of its flagship programme on Conservation in the tropics, from 28 till 31 January 2019. The objective of it was to understand the history, development and significance of Kampong Ayer and present an analysis of Kampong Ayer within the framework of USNECO World Heritage Site selection criteria.

The meeting featured a site visit to the cultural heritage Kampong Ayer, a water village with a history of over 500 years in the capital of Brunei. The village has been shrinking over the past decade due to various reasons, to name a few, sub-standard living conditions, lure of jobs in companies, migration, marriage to people outside the community, and the threat of disasters. If the village is to be sustainable, measures will have to be taken, and this must be done soon. Besides Kampong Ayer, the participants also visited Awang Semaun Secondary School, where environment-awareness raising activities are promoted among students.

The project School-Based Approach in Promoting Disaster Risk Management for Cultural Heritage is in line with SEAMEO Seven Priority Areas (2015-2035), particularly Priority Area 3 on resiliency in the face of emergencies. It aims to initiate ways to engage school children, teachers and staff, parents and communities in reducing the impact of disaster on their cultural heritage.
Q. 1 What lessons have you learned from working in so many different branches of education?

My experience of working in many branches of education has enabled me to recognise and appreciate the need to manage each branch differently. Each section or branch of education has its own uniqueness, resources requirements, purposes for running them, their contributions to economy, returns on investment and so on. It is important that we take cognizance of such differences in the effective management of each of these branches of education. For example, it is inadequate for vocational and technical education to be managed based on the knowledge and skills acquired from the experience of running primary or secondary education. It is also not a good idea to use concepts or notions used in primary or secondary education to be applied to the situation of vocational and technical education. For example, one cannot simply use ‘student to staff’ ratio as a criterion for determining the amount of resources to be allocated in all of these branches of education. In the context of vocational and technical education the ‘student to staff’ ratio should generally be lower in comparison to the common ideal ratio used in primary or secondary education. This is because the specialized nature of vocational/technical subjects requires each subject area to be taught by more than one staff member depending on the skills areas of the staff member. Thus a welding instructor cannot be asked to teach electrical wiring unless the instructor has multiple technical skills. Likewise, more than one teacher is expected to be present in a workshop setting because of the need to meet the safety requirement. In general, we need many more teachers per class of students in the vocational and technical setting than in the primary or secondary setting.

Another learning point is the expensive nature of running vocational and technical programmes when compared to running primary or secondary educational programmes. Because of the work oriented nature of vocational and technical education programmes, students need to have ‘hands-on’ experience which means that the institution running Vocational and Technical Education (VTE) programmes must have equipment and machines to be used by the students. Alternatively, to reduce costs, the institution can run the ‘theory’ part of the programmes and the industry can run the ‘practical’ part of the programmes. Hence, close collaboration with industry is a very important component of management in the vocational and technical setting compared to other branches of education. In short, we cannot manage each branch of education by treating all branches of education the same. Each branch has different requirements.

Q. 2 How did you come into Technical and Vocational Education and to be the first director of SEAMEO VOCTECH?

I was teaching mathematics and science subjects in Forms 3, 4 and 5 students in Berakas Secondary School when I first joined the government educational service in October 1979. Four (4) years later, in 1984, I was transferred to Jefri Bolkiah School of Engineering (JBSE) as principal. I did not apply and I was not interviewed for the job. I believe the education authority at that time probably selected or promoted me as principal of the school based on my educational background, which is combined sciences. To manage technical education institutions, they might regard background in sciences as an important criterion to fill up the headship position. When ITB (now upgraded to UTB) was established in 1986, I was made as the first registrar of the institute and when JBSE was upgraded from school to college (JBCE) in April 1987 I was again transferred back to the College to resume as the college’s principal. It was in late 1989 when the Permanent Secretary of Ministry of Education, challenged me to become the first ‘Director’ of SEAMEO Regional Centre for Vocational and Technical Education. He had come all the way 126 km from the Capital to JBCE unexpectedly.

On 28 August 1990, the SEAMES President officially appointed the first Centre Director and Governing Board Chairman. Dr. Azaharaini was the Co-Founder and the 1st Centre Director of SEAMEO VOCTECH Regional Centre.

The Centre was located at a temporary office in one of the teacher’s quarters of University Brunei Darussalam which was later transferred to Maktab Teknik Sultan Saifuul Rijal. In 1993, the Centre was then moved to Jalan Pasar Baharu and became the headquarter until now.
I immediately accepted the proposition, as it offered me an opportunity to solve the problem of commuting. I did not know for certain what the job entailed. The ‘regional in character’ of the Centre and the ‘first of its kind established in Brunei’ worried me. Nevertheless, the decision to accept the position as ‘director’ turned out to be ‘not a bad decision’ on my part and in fact SEAMEO in general has contributed tremendously to my personal and professional growth and because of this my time with SEAMEO VOCTECH has always be remembered.

Q. 3 What do you think makes SEAMEO VOCTECH so special?
The contribution of vocational and technical education towards socio-economic development of a country has been recognized by SEAMEO member countries. The SEAMEO Experts Committee established in 1989 to identify the needs of member nations in vocational and technical education reported their findings as follows:

A) about 50 thousands SEAMEO nationals, mostly vocational and technical teachers and administrators, in need of training for the next 5 years. These needs far exceeded the capacity of their existing institutions to provide in-service training;

B) Vocational and Technical training was accorded high priority in all Member Countries as such Governments of Member Countries were increasing their budgets to establish more Vocational and Technical Institutions and/or improve the quality of their Vocational and Technical human resource training programme;

C) Member Countries had common needs in Vocational and Technical Education and Training and these needs were of a continuing nature and not sufficiently met by their existing resources partly because of lack of qualified resource persons and lack of infrastructure for continuous staff development programmes;

D) There was a felt need for Research and Development activities to be upgraded and rationalised in all Member Countries because most training institutions in the region undertook Research and Development activities but there was no formal unit responsible for such activity within the Ministry/Department of Education. The constraints common to Member Countries included the lack of trained researchers, Inadequate funds, inadequate support from relevant agencies and inadequate facilities;

E) Unit or agency responsible for Management Information System in each of the Member Countries was identified but its activities were limited because of lack of qualified personnel, inadequate facilities, incompatible Operating Systems and inadequately organised Information Systems. There was, therefore, a need for MIS in Member Countries to be better developed.

These findings prompted the SEAMEO Council to establish a Regional Center for Vocational and Technical Education based in Brunei Darussalam to serve the human resources needs of these countries and provide a link of networks for national, regional and international organizations.

Brunei Darussalam was considered lucky to be given the honour to host the Regional Centre because its Vocational and Technical Education (VTE) at that time shared similar challenges as faced by other SEAMEO member countries and, therefore, its establishment in Brunei is an opportunity which should be taken full advantage of by the education sector. The Brunei VTE system at that time was in transition moving away from total dependence on foreign programmes, awards, and accreditation, towards their locally-based equivalents. The migration towards self-reliance was in response to the need for greater flexibility and effectiveness in the delivery system of Human Resource Development especially in matching the skills needed by local industry. Such migration requires the presence of VTE experts to help establish the new VTE system. In this connection, SEAMEO VOCTECH Regional Centre is special in a sense that its position and location are strategic for the socio-economic and political development of the region through the strengthening of the VTE institutions by sharing the regional resources particularly SEAMEO experts and the exploitation of its network of experts, namely: expertise from Associate member countries such as France and Canada and Donor countries such as Japan. For Brunei Darussalam, the Regional Centre is special in that it can play a role as a ‘National Center’ where its activities and programmes can be geared specifically to address the needs of Brunei Darussalam. This means that it can have impactful contributions to regional as well as local demands in the areas of vocational and technical education and training.

Q. 4 On a personal side, what do you do to make the most of Brunei Darussalam?
In the early years of operation, the Capital fund such as for building and equipment and Operational funds such as salary payments for center’s staff were provided by the Brunei Government (host country). Funding for programmes and activities, on the other hand, was provided by the SEAMEO Secretariat in the form of scholarships which normally comes from member countries contributions, support from associate member and donor countries and endowment funds provided by the host country. What I would do to make the most of Brunei Darussalam is to maximize the funding support for the Center not just for Capital and Operational Funds but also the funding for programmes and activities including funding for research and development. It is understandable that for Brunei government to provide such support the Regional Center will have to make a well justified proposal of activities and programmes which would benefit Brunei to the most. The activities and programmes should be determined in terms of contents as well as implementation plan in connection with the needs of Brunei’s education system in general and VTE system in particular.
Validating Research of IBTE on Graduates Employment Study and Employers Satisfaction Survey was completed on January 2019 where SEAMEO VOCTECH acted as a consultant and validator for the studies carried out by the Research and Statistics Division (RSD) of the Institute of Brunei Technical Education (IBTE). The surveys are normally implemented to the IBTE graduates and employers approximately six months after convocation. The graduate employment survey was able to achieve the following objectives: (1) to collect information on graduates’ employment status, (2) to identify graduates’ employment destination, (3) to assess graduates’ job-relevance to their programme of study, and (4) to inform and as a source of reference for policy-makers and other TVET stakeholders for planning and decision-making.

All management and staff of SEAMEO VOCTECH were involved in the research activity, involving IBTE schools/campuses in Brunei Darussalam, as assigned by Dr. Paryono, Deputy Director for Professional Affairs cum Research and Development Specialist.

In Collaboration SV, TEMASEK Foundation and ITEES, a two week programme was held on Technical Skills Upgrading Programme for TVET Teachers and Trainers in Southeast Asia on Automotive Engineering at ITE, Singapore with a total of 31 participants. Attending the closing ceremony of the event on 29 March 2019 was SV representative, Acting Centre Director, Hajah Noorzainab Haji Abdulladi and Documentation Officer, Nursyuaidah Haji Ahmad. Also presence were the CEO of Temasek Foundation, Mr Bruce Poh and Deputy CEO (Industry) cum Singapore SV Governing Board Member, Mr Aw York Bin as well as the course participants. This training programme marks the final training programme in collaboration with TEMASEK Foundation and ITEES.
Regional Training Programme

LEARNING MANAGEMENT SYSTEM (LMS) FOR BEST CLASSROOM TECHNOLOGY INTEGRATION

14-25 January 2019 | Brunei
Course Co-Ordinator: Dr. Abbes Sebihi

A two week training programme on LMS for best classroom technology integration was held on 14—25 January 2019 at SEAMEO VOCTECH with a total of 22 participants from SEAMEO member countries. This regional training programme takes advantage of the strengths of the internet as a teaching and learning environment, namely its open, distributed, dynamic, globally accessible, filtered, interactive, and archival nature. It is designed for TVET personnel, specifically teachers who share a commitment as educators to improve the quality of education by using digital technologies to produce teaching materials that correspond to the current learning trends.

Specifically, the course aimed to equip participants with relevant knowledge, skills and attitudes to use learning management systems effectively for teaching and learning in the 21st century. Among others, participants of the training programmes should be able to: 1) identify the levels of ICT integration in the learning environment of institution in SEAMEO member countries represented on the course; 2) apply latest ICT tools and applications to develop learning contents for the LMS; 3) identify user-friendly software and technology for developing learning material in the chosen LMS format; 4) evaluate online teaching and learning materials via the help of the rubrics.

Group discussion with one of the facilitator, Mr Ariffin
Group discussion before group presentation

During an educational visit to Politeknik Brunei
The “Effective Project Management for TVET Institutions” regional training took advantage of planning competencies as an important factor in making Management of Education Innovations a success involvement and collaboration in any project. The programme undertook discussion on theories, principles and practices of project management in TVET institutions of Southeast Asia, including the identification and selection of projects, development of project plan and resource schedules, and the management of project teams. The development of an action plan was expected to help improve their respective institutions’ systems and operations.

The two week programme began on February 11, was designed to meet the common needs of SEAMOE member countries for upgrading the competencies of their education practitioners. A total of 21 participants from 9 SEAMEO member countries were involved in the programme, facilitated by course coordinator, Dr. Abbes Sebihi and resource person, Dr. Willie Herrera Libunao and Ariffin Haji Yussof. As for the study visit, the participants were given the opportunity to visit the Entreprenuership Village (EV) and Herbal Garden Centre at University Brunei Darussalam.

The training programme ended with certificates presentation to the participants and token of appreciation to the course co-ordinator.
SEAMEO VOCTECH and TEMASEK FOUNDATION-ITEES, Singapore, co-organised this technical skills upgrading regional training programme for the TVET teachers in Southeast Asia on Automotive Engineering, at ITE Headquarters, Singapore, from the 18 – 29 March 2019.

Automotive Engineering is the third of the second round skills upgrading training programme for fiscal year 2018/2019. Meant for technical and vocational teachers and trainers, this training programme is aimed at upgrading their technical/vocational skills, while at the same time mastering the pedagogical skills to train the technical/vocational subjects, this becoming Master Trainers.

This skills upgrading training programme aims to achieve the following objectives: 1) enhance technical/vocational and pedagogical skills of master trainers in the area of Automotive Engineering, and 2) enhance technical/vocational and pedagogical skills of other instructors and trainers by conducting Post-Training Sharing Workshop (PSW) by the master trainers in their home countries.

A total of 31 participants coming from 30 TVET institutions across the SEA region attended this regional training programme, under the expert facilitation of Mr. Phillip Cheong, Senior Lecturer, and Mr Haridas Pilai, Lecturer of the ITE Headquarters, Singapore.

One of the Brunei participant from IBTE presenting his country profile.

During practical hands-on activities at ITE Headquarters.

Brunei participants with some of the SEAMEO countries participants.

Group photo of all during the closing ceremony of the training programme.
Labour Market Information is an important source for guiding our students for their further education or for employment. Better understanding of labour market needs and skills matching have featured high on the policy agenda of many countries, driven by both rapid technological advances and global competition. Skills matching can also help reduce unemployment, particularly among young people. It helps build a better life for individuals by improving employability, social mobility and inclusion (European Training Foundation, 2016).

Considering the importance of having high-quality and accessible LMI for matching the requirements in education for education policymakers and practitioners to enhance their knowledge and skills about LMI and how to use it effectively.

A total of 25 participants coming from 10 ASEAN member countries attended this Regional Training Programme, which takes place in SEAMEO VOCTECH from 22 April to 3 May 2019.

Specifically, this training programme will equip participants with knowledge about LMI including the overview of development process and characteristics of good LMI, and disseminating LMI for the purpose of guiding students.

The general objective of this training programme is to provide participants with knowledge and skills about LMI, ranging from the overview about the development of LMI, being able to assess the quality of LMI by knowing some characteristics of good LMI, having the skills on how to access, read, interpret, present and disseminate relevant LMI.

Participants wearing their traditional dress during welcoming dinner hosted by the Centre

Participants listening to the lecture done by Dr. Paryono

During group presentation as one of the group activity

Dr. Paryono presented a token of appreciation to Ms. Hafilah, the invited speaker from Ministry of Energy and Human Resource

Participants listening to the lecture done by Dr. Paryono
A two week training programme on ‘Integrating Entrepreneurial Skills in TVET Curriculum’ was held on 24 June to 4 July 2019 at SEAMEO VOCTECH.

A total of 21 participants from 10 ASEAN member countries were involved in the training programme ranging from TVET instructors, policy makers, educator, etc.

The training aims at strengthening the effectiveness of entrepreneurship development programmes through building the capabilities of participants.

It also aims to enable the participants to integrate entrepreneurship acquisition skills among their students into their training programmes, by providing them with skills and attitudes in entrepreneurship skills training in TVET that will best meet the SEAMEO member countries.

In addition, participants should be able to generate ideas and recognize business opportunities; develop concept and business plan; identify and acquire resources for the business start up; operate the business and utilize resources to achieve the set goals; acquire skills to decide on the future prospects of the business; reflect and brainstorm on the experiences gained from the ‘Entrepreneurs Day’ and develop action plans on integrating entrepreneurship skills in units/programmes taught in their respective institutions.

The two week programme ended with a closing ceremony with the presence of Dr. Azaharaini Hj Mohd Jamil, the former Director of SEAMEO VOCTECH/current CEO of IGS College, as the Guest of Honour.
A 5 day In Country training programme was held in Myanmar on Marketing strategy for TVET Institutions where Dr. Paryono was the course co-ordinator for this training programme from 11 to 15 February 2019. This course will enhance the participants understanding and skills in marketing TVET programmes and institutions.

The training programme ended with certificate presentation to the participants.

Regional Forum on “Entrepreneurship Skills & Strategies: Pathway for the Future”

27 June 2019 @ SEAMEO VOCTECH, Brunei Darussalam

SEAMEO VOCTECH Regional Centre conducted a Regional Forum on ‘Entrepreneurship Skills & Strategies: Pathways for the Future’ was held on 27 June 2019 focusing on skills, strategies and challenges pertaining to entrepreneurship.

A panel of five speakers were features at the forum, discussing the topic above. Among the aims of the forum were to share and discuss the challenges encountered in the pursuit of entrepreneurship initiatives; share multi-sectoral initiatives and strategies in support of improved entrepreneurship skills response; highlight the important entrepreneurship competencies required to success in a business initiative; and promote innovation and initiatives on entrepreneurship competencies as building blocks for learning and self-reliance.

The first to speak was Head of the Entrepreneurship Village (EV) at University Brunei Darussalam (UBD), Mr Adna Shatriremie bin Haji Abdul Rahman. Second was the Senior Technical Instructor and Entrepreneur Club Coordinator at Institute of Brunei Technical Education (IBTE), Mr Fujiminori bin Haji Darwis. The third speaker was the owner of Kunyit 7 Lodge, Dayangku Kemariah binti Pengiran Haji Duraman, who shared insights from her experience as an entrepreneur and how she managed to achieve success with her homestay business in Kampong Ayer. Next to present was the founder of Big BWN Project, Ms Noorhafidah binti Rashid. The forum’s final presenter was Relationship Officer at Bank Usahawan, Ms Fatimah Az-Zahra binti Tassim where she shares the overall objective of Bank Usahawan is to provide financial facilities and other financial services to micro, small and medium enterprises (MSMEs).

The Forum ended with a token of appreciations to the five panel speakers.
STAFF NEWS

WELCOMING

Ms Nurul Rofini binti Zainal Arifin was appointed as Content Officer for SEA-VET.net officially on 18 January 2019

FAREWELL

Ms Aiman Bazilah binti Haji Alihan was appointed as Assistant Content Officer for SEA-VET.net officially on 21 January

Photo taken during the farewell of Ms Gita, former SV SEA-VET.net staff

CD presenting token of appreciation during the farewell ceremony of Mr Yusry, former SV VIH staff

Dr. Abbes Sebihi, former SV Knowledge Management Manager giving speech during his farewell ceremony
VOCTECH GALLERY
Majlis Khatam Al-Quran
Majlis Sambutan Hari Raya

Centre Director presenting ‘Sedekah’ to Mrs Haiati

Group Photo of all SV staff during the event held on 29 May 2019

Photo taken during ‘Majlis Sambutan Hari Raya’ held on 21 June 2019

Group Photo of all Invited Guests, SV Management and Staff during ‘Majlis Sambutan Hari Raya’ held on 21 June 2019
EVENTS

TRAINING PROGRAMMES FOR JULY—DECEMBER 2019

50th SEAMEO Council Conference, 23-24 July 2019 in Thailand

Centre Directors Meeting, 5-8 August 2019 in Thailand

In-Country Training Programme on Authentic Teaching and Assessment, 19—23 August 2019 in Lao PDR

Special Training Programme on Innovative Teaching and Learning for Industrial Changes due to Industry 4.0, 5—16 August 2019 at Thailand, Bangkok

5th High Officials Meeting on SEA-TVET, 9-10 September 2019 at the Centrepoint Hotel, Brunei Darussalam

30th Governing Board Meeting, 11-12 September 2019 at SEAMEO VOCTECH, Brunei Darussalam

In-Country Training Programme on Professional Development Training for Technical Vocational Education and Training (TVET) Teachers in Industry 4.0, 19—27 September 2019 in Malaysia

In-Country Training Programme on Curriculum Design for Industry 4.0 work process, 7—15 October 2019 in Thailand

In-Country Training Programme on Quality Assurance and Quality Development in TVET Institutions, 7-15 October 2019 in Thailand

42nd SEAMEO High Officials Meeting, 26-28 November 2019 in Thailand

In-Country Training Programme on Industry and TVET Institutions Linkages, from 4-12 November 2019 in Vietnam

Special Training Programme on Youth Entrepreneurship, 2-6 December 2019 in Brunei Darussalam

Special Training Programme on Youth Entrepreneurship, 9-13 December 2019 in Brunei Darussalam

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