

ด่วนที่สุด

ที่ ศธ 0604/ 12 122



สำนักงานคณะกรรมการการอาชีวศึกษา
กระทรวงศึกษาธิการ กทม. 10300

2 กันยายน 2567

เรื่อง ทูลเกล้าทูลกระหม่อมถวายขอ “IR 4.0 Applications to Enhance Teaching and Learning Through Cloud Service”
เรียน ผู้อำนวยการสถาบันการอาชีวศึกษาและผู้อำนวยการสถานศึกษา
สิ่งที่ส่งมาด้วย รายละเอียดการสมัครรับทุน จำนวน 1 ฉบับ

ด้วยศูนย์ระดับภูมิภาคว่าด้วยเทคนิคและอาชีวศึกษาของซีมีโอ (SEAMEO Regional Centre for Technical and Vocational Education and Training: SEAMEO VOCTECH – ซีมีโอไวกเทค) ประเทศบรูไนดารุสซาลาม จะจัดฝึกอบรม ในหัวข้อ “IR 4.0 Applications to Enhance Teaching and Learning Through Cloud Service” ระหว่างวันที่ 4 – 6 พฤศจิกายน 2567 ในรูปแบบออนไลน์ และวันที่ 18 – 23 พฤศจิกายน 2567 ณ ประเทศบรูไนดารุสซาลาม ทั้งนี้ ผู้สมัครรับทุนต้องเป็นครู อาจารย์ ผู้ฝึกอบรม นักวิชาการศึกษา ด้านเทคนิค และอาชีวศึกษา และการฝึกอบรมสำเร็จการศึกษาระดับปริญญาตรีไม่จำกัดสาขา นอกจากนี้ จะต้องมียุ่งาน เหลือก่อนเกษียณอย่างน้อย 5 ปี มีความรู้ด้านภาษาอังกฤษ คอมพิวเตอร์ และอินเทอร์เน็ตเป็นอย่างดี รวมทั้งมีความสามารถในการดำเนินงานและพัฒนาแผนปฏิบัติการ โดยผู้จัดจะรับผิดชอบค่าธรรมเนียม การฝึกอบรม ค่าบัตรโดยสารเดินทางระหว่างประเทศ ไป – กลับ (ชั้นประหยัด) ค่าที่พัก ค่าเบี้ยเลี้ยง ค่าประกันภัยการเดินทาง ค่าใช้จ่ายเกี่ยวกับการจัดทำวีซ่าและตรวจคนเข้าเมือง ค่าพาหนะรับส่งสนามบิน ภายในประเทศบรูไนดารุสซาลาม ค่าอาหารกลางวัน และค่าอาหารว่างเช้า – บ่าย ให้แก่ผู้สมัครที่ได้รับ การคัดเลือกให้รับทุนรายละเอียดทุนฝึกอบรมฯ ตามสิ่งที่ส่งมาด้วย

สำนักงานคณะกรรมการการอาชีวศึกษา จึงขอประชาสัมพันธ์ทุนฝึกอบรมฯ ให้สถาบัน การอาชีวศึกษาและสถานศึกษาทราบ ทั้งนี้ ผู้สนใจสามารถศึกษาข้อมูล และกรอกใบสมัครรับทุนฝึกอบรมดังกล่าว โดยส่งมายังระบบสารบรรณอิเล็กทรอนิกส์ (AMS e-Office) ของสำนักนโยบายและแผนการอาชีวศึกษา ภายในวันที่ 4 กันยายน 2567

จึงเรียนมาเพื่อทราบและดำเนินการในส่วนที่เกี่ยวข้องต่อไป

ขอแสดงความนับถือ

(นายสง่า แต่เชื้อสาย)

**ผู้ช่วยเลขาธิการคณะกรรมการการอาชีวศึกษา ปฏิบัติราชการแทน
เลขาธิการคณะกรรมการการอาชีวศึกษา**

สำนักนโยบายและแผนการอาชีวศึกษา

โทร. 0 2026 5555 ต่อ 3012

โทรสาร 0 2280 1252

“เรียนดี มีความสุข”



ایس ای ایہ عم ای او نوکتیک
SEAMEO VOCTECH

Southeast Asian Ministers of Education Organisation
REGIONAL CENTRE FOR TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING
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Email: info@voctech.edu.bn Web :www.voctech.org

สำนักงานส่งเสริมพัฒนาการศึกษา
เลขที่ 2426
วันที่ ๑๓ ส.ค. ๒๕๖๗
เวลา ๑๑.๒๑
ผู้อำนวยการศูนย์พัฒนาการศึกษา

Our ref: SV/T/RTP-2425/02 [09]

01 August 2024

PERMANENT SECRETARY
Ministry of Education
Ratchadamnoen Nok Road Dusit
Bangkok 10300
Thailand

Your Excellency,

OFFERING FULL SCHOLARSHIPS, SUBSIDISED AND FEE-PAYING SCHOLARSHIP(S) FOR PARTICIPATION IN SEAMEO VOCTECH HYBRID REGIONAL TRAINING PROGRAMME ON IR4.0 APPLICATIONS TO ENHANCE TEACHING AND LEARNING THROUGH CLOUD SERVICES

04 – 06 November 2024 (Online) &
18 – 23 November 2024 (Onsite – SEAMEO VOCTECH, Brunei Darussalam)

Warm greetings from SEAMEO VOCTECH Regional Centre for Technical and Vocational Education and Training, Brunei Darussalam!

We are pleased to inform Your Excellency that the SEAMEO VOCTECH Regional Centre will be conducting the Regional Training Programme on **IR4.0 APPLICATIONS TO ENHANCE TEACHING AND LEARNING THROUGH CLOUD SERVICES** on **04 – 06 November 2024 (Online) & 18 – 23 November 2024 (Onsite – SEAMEO VOCTECH, Brunei Darussalam)**. This hybrid regional training programme aims to enhance teaching and learning through the effective use of cloud services and online applications for content development.

This training programme is offered with three funding options: Full Scholarship, Subsidised and Fee-Paying. SEAMEO VOCTECH is pleased to offer **one (1) Full Scholarship** to a TVET instructor from any discipline, with a bachelor's degree in any field. For other interested Ministries, Institutions and Industries whose nature of business is relevant to the above training, SEAMEO VOCTECH is also offering a **Subsidised** and **Fee-paying participation** to enroll in this programme.

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W.M.W.S

For more explanation on the classification package, please see the table below.

COMPONENT	FULL SCHOLARSHIP	SUBSIDISED	FEE-PAYING
Training Fee US\$550.00	SEAMEO VOCTECH	SEAMEO VOCTECH	Respective Ministry/ Institution
Airfare		Respective Ministry/ Institution	
Accommodation (twin-sharing room)			
Daily Allowance			
Travel Insurance		SEAMEO VOCTECH	SEAMEO VOCTECH
Immigration & Visa Processing			
Transportation (Airport, Hotel, Training Venue)			
Lunch & Refreshments (AM & PM)			

In this regard, SEAMEO VOCTECH Regional Centre would like to seek Your Excellency's kind support and assistance in socialising this information to the relevant stakeholders and to nominate qualified participants as per the following requirements:

1. The target participants for this training programme are TVET instructors from any discipline. They should also be bachelor's degree holders in any field.
2. They should have a minimum of 5 years of service remaining.
3. Any Full Scholarship alumnus who has attended our Regional Training Programmes before at SEAMEO VOCTECH can only apply again for a similar course THREE YEARS after the date of their last attended course.
4. The participant should be proficient in English as the course will be conducted and communicated in English.
5. They should have adequate computer skills.
6. They should have the capacity to carry out the action plans that they will develop.

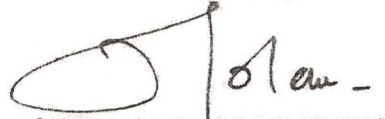
Enclosed are the **Course details (Appendix 1)** and the **Nomination Form** to be completed by the nominee(s). We would appreciate it very much if the completed form could reach us by or before **04 September 2024**. For further enquiries and information, please contact Mr Ariffin bin Hj Yusof (Course Coordinator) at ariffin.yusof@voctech.edu.bn or Nur Haidatul Fatimah (Training Officer) at haidatul.marzuki@voctech.edu.bn



Thank you very much for Your Excellency's kind assistance and support of this programme and we look forward to receiving Your Excellency's nominations soon.

"Inclusive TVET for a Green and Digital Future"

Yours sincerely,



[HAJI NORJEMEE BIN JENEK]
Director

cc: Acting Sub Lt Thanu Vongjinda, Secretary General, Office of the Vocational Education Commission, Ministry of Education
(SEAMEO VOCTECH Governing Board Member)
E-mail: suthepchon3@hotmail.com

Course Outline

Hybrid Regional Training Programme on “IR4.0 Applications to Enhance Teaching and Learning Through Cloud Services (Online Applications for Content Development)”

4-6 November (Online) & 18-23 November 2024 (Onsite)

Rationale

The Fourth Industrial Revolution (IR4.0) is transforming the educational landscape by integrating advanced technologies such as artificial intelligence, big data, and the Internet of Things (IoT) into the teaching and learning processes. To keep pace with these rapid advancements, it is crucial for educators, particularly those in Technical and Vocational Education and Training (TVET), to acquire the skills necessary to leverage these technologies.

IR4.0 technologies have the potential to revolutionize education by providing personalized learning experiences, improving accessibility, and facilitating real-time collaboration. Cloud services offer scalable and cost-effective solutions for content development, storage, and distribution. By integrating these technologies into the curriculum, educators can better prepare students for the demands of the modern workforce.

This hybrid regional training programme, conducted in collaboration with CENTEXS (Centre for Technology Excellence Sarawak), will further enhance its value by leveraging CENTEXS's partnership with EON Reality, a global leader in Augmented and Virtual Reality (AR/VR) technology. This collaboration provides participants with unique opportunities to explore cutting-edge AR/VR applications and integrate them into their teaching strategies, ensuring that they are at the forefront of educational innovation. By participating in this programme, educators will gain the skills and knowledge to effectively use cloud services, online applications, and AR/VR tools for content development, ultimately transforming the educational experience and better preparing students for the demands of the modern workforce.

Objectives

This course shall focus on the technique to develop Digital, Immersive, and Interactive Content and the cloud platform upon which these contents can be delivered to enhance teaching and learning.

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After attending this training programme, participants should be able to

- Identify the various types of significant content that are part of interactive multimedia.
- Apply suitable pedagogic treatment to the online content to be developed.
- Develop interactive digital multimedia contents in various formats for delivery on an online platform.
- Manage a cloud platform to host interactive digital content.

Contents

1. Introduction to IR4.0 and Cloud Services

An overview of the course will be given in this session with the relevant schedule for online and onsite activities. The participants will explore the transformative impact of IR4.0 technologies on education and the benefits of cloud services for teaching and learning. The session will include detailed presentations on key IR4.0 components, such as IoT, AI, and AR/VR. Participants will be introduced to EON-XR and its applications in creating immersive educational experiences. Through interactive discussions, a live demonstration, and a hands-on activity, attendees will gain practical insights into integrating these technologies into their educational practices. The session will conclude with a recap of key points and next steps for further learning.

2. Case Study: Implementation of EON-XR in an Educational and TVET/CTE Institution

This case study explores the practical application of EON-XR, an advanced immersive technology, within the framework of Industry 4.0. It provides a real-world example of how IR4.0 technologies are integrated into educational institutions as well as Technical and Vocational Education and Training (TVET) and Career and Technical Education (CTE) settings. The case study highlights the benefits of adopting EON-XR, such as enhanced learning experiences and skill development, while also addressing the challenges encountered during its implementation.

Participants are required to submit and share their presentation in slides format that give insight on the current practices and initiatives undertaken by their respective institutions or countries. This presentation should highlight how these practices align with or contribute to advancements in educational technology, including any relevant applications of Industry 4.0 technologies. The goal is to share insights and experiences that can benefit other participants and foster a collaborative learning environment.

3. EON-XR Platform Overview

In this session, participants will explore the EON-XR platform, a cutting-edge tool that utilizes VR, AR, and other immersive technologies central to Industry 4.0. The session will begin with an introduction to the platform's core features and functionalities. Through

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live demonstrations, attendees will observe how EON-XR creates interactive 3D environments and simulations that enhance learning through immersive experiences. The discussion will focus on how EON-XR aligns with IR4.0's emphasis on integrating digital technologies into everyday processes, illustrating its impact on modern educational practices. The session aims to provide insights into how these advanced technologies transform teaching methods, increase student engagement, and better prepare learners for future industry demands.

4. Designing and Developing Immersive Content with EON-XR

This session will provide participants with hands-on experience in creating immersive educational content using the EON-XR platform. Participants will learn how to design, develop, and deploy 3D interactive assets, environments and simulations tailored to their specific teaching needs. The focus will be on creating immersive, interactive content that leverages VR, AR, and 3D technologies to enhance learning experiences. This approach aligns with Industry 4.0 (IR4.0) by demonstrating how advanced tools and technologies can be used to innovate and personalize educational materials. The session will showcase how EON-XR facilitates the creation of tailored learning experiences that reflect the shift towards digital and adaptable education, highlighting the importance of integrating IR4.0 technologies into content development to meet contemporary educational needs and industry standards.

5. Strategies for Implementing IR4.0 Applications in Educational Institutions

The session on Strategies for Implementing IR4.0 Applications in Educational Institutions will equip participants with practical approaches to integrate advanced technologies into their educational frameworks. It will begin with discussing successful implementation strategies, emphasizing stakeholder engagement, infrastructure planning, and training. Participants will then engage in group discussions to identify potential challenges within their institutions, such as budget constraints or resistance to change, and brainstorm solutions tailored to their contexts. The session will conclude with participants developing a preliminary action plan, outlining steps for introducing IR4.0 technologies, such as EON-XR, into their curriculum. This plan will focus on aligning technology adoption with institutional goals, securing necessary resources, and providing ongoing support and training for educators. By the end of the session, participants will have a clear roadmap for fostering a tech-forward educational environment.

6. Mini Project - Collaborative Development of an Immersive Learning Module

The Mini Project - Collaborative Development of an Immersive Learning Module is a hands-on group activity designed to consolidate participants' learning by applying IR4.0 concepts, particularly through the EON-XR platform. Participants will be divided into groups based on their subject area or interest and tasked with creating a complete immersive learning module. This project involves designing interactive 3D environments, incorporating multimedia elements, and aligning the content with educational objectives.

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The process begins with brainstorming and planning, where groups identify a specific topic or lesson to develop. They will then use the EON-XR platform to create the module, focusing on making it engage and educationally effective. Throughout the project, participants will apply best practices learned during the course, such as user-centered design and iterative development.

Each group will present their module to the class, explaining their design choices and the educational impact. The session will include peer review and instructor feedback, allowing groups to refine their work. The project will culminate in the submission of the final module for evaluation, emphasizing creativity, functionality, and alignment with IR4.0 principles.

Note: Participants as a group need to screen-record and present in a 10-minute video an illustration of the contents developed for their interactive lesson.

Duration

The training programme will run for 8 days, divided into two parts: the first part consists of 3 days which will be held virtually from 4-6 November 2024, and the second part of 5 days will be held face-to-face from 18 – 23 November 2024.

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Delivery Method

The training programme shall be conducted using a blended approach with 3 days conducted online, and the remaining 5 days being conducted face-to-face from Monday to Saturday at SEAMEO VOCTECH Regional Centre, Brunei Darussalam. Further details for the timing of both the online and onsite sessions shall be furnished once SEAMEO VOCTECH receives the name of the candidates for the programme.

a. Online Sessions:

The course content will be delivered through online presentation synchronously with lectures and demonstrations. Participants are also expected to participate by sharing presentation screens and interacting in online activities. Selected participants (selected randomly) are also required to present their country report online.

b. Face-to-Face Sessions:

Face-to-face sessions will focus on the following:

- Lectures
- Demonstrations
- Discussions
- Assignments
- Mini Group Project

Expected Output

At the end of the training programme, participants should have completed the following:

1. Developed a set of sample content development comprising of text, image, videos, and simple animations contextualised to support their lesson content.
2. A mini project conducted in a group and presented on the final day.

Target Participants

This training programme is designed for lecturers, teachers, and trainers in Technical and Vocational Education and Training (TVET). Additionally, it is ideal for educators, instructional designers, and technology enthusiasts who are interested in creating and integrating Augmented Reality (AR) and Virtual Reality (VR) technologies into their teaching practices. Participants who seek to enhance their skills in using cloud services, online applications, and immersive technologies for content development and delivery will greatly benefit from this programme.

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Course Requirements

All participants are required to submit all assignments given and present the output of their group project at the end of the training programme. Participants must also submit a country paper that describe the practices currently being undertaken by their respective institutions or countries in integrating online content into their teaching and learning practice.

Participants should bring along a laptop computer with at least WINDOWS 10 installed. It is recommended to use Windows based computer for conformity in training and participants should also bring a portable headphone with Microphone. Besides the hardware requirement, they are expected to be proficient in using computers, the WINDOWS operating system, Microsoft office applications (or equivalent) and the Internet.

Course Coordinators

For further inquiries, please contact the Course Coordinator:

MR ARIFFIN BIN HJ YUSOF

ICT Manager

ariffin.yusof@voctech.edu.bn

SEAMEO VOCTECH Regional Centre, Jalan Pasar Baharu, Gadong BE 1318
Brunei Darussalam

Tel No. : +(673) 244 7992

Fax No. : +(673) 244 7955

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References:

Caplan, D & Graham, R. **The Development of Online Courses**. Retrieved from <https://read.aupress.ca/read/the-theory-and-practice-of-online-learning>.

Downes, S. (2022). **Newer Theories for Digital Learning Spaces**. In: **Handbook of Open, Distance and Digital Education**. Springer, Singapore. Retrieved from https://doi.org/10.1007/978-981-19-0351-9_8-1

Abdul Razak et al., **Digital Learning in Technical and Vocational Education and Training (TVET) In Public University, Malaysia**, Journal of Technical Education and Training Vol. 14 No. 3 (2022) p. 49-59. Retrieved from <https://penerbit.uthm.edu.my/ojs/index.php/JTET/article/view/10974>

Schwab, K. (2016), **The Fourth Industrial Revolution**, World Economic Forum Publication, ISBN-13: 978-1-944835-01-9

Kaliraj, P., & Devi, T. (2023). **Integrating Industry 4.0 Technologies in Education: Enhancing Teaching and Learning with Digital Tools**. In: **Industry 4.0 Technologies for Education: Transformative Technologies and Digital Tools for the Classroom**. Routledge.

Uleanya, C., & Ramaligela, M. S. (2022). **Reforming Educational Curricula in the Era of Industry 4.0**. In: **Educational Reform in the Era of Industry 4.0: Implications for Curriculum, Pedagogy, and Learning Environments**. Springer.

REGIONAL TRAINING PROGRAMME NOMINATION FORM



1. TRAINING PROGRAMME

COURSE TITLED	DATE	VENUE
HYBRID REGIONAL TRAINING PROGRAMME ON IR4.0 APPLICATIONS TO ENHANCE TEACHING AND LEARNING THROUGH CLOUD SERVICES	04-06 NOVEMBER (Online) & 18 – 23 NOVEMBER 2024 (Onsite)	Online & Onsite – SEAMEO VOTTECH

2. PERSONAL INFORMATION

TITLE <input type="checkbox"/> Dr. <input type="checkbox"/> Mr. <input type="checkbox"/> Ms.	NAME Click or tap here to enter text.	IDENTIFICATION CARD NO. Click or tap here to enter text.
GENDER <input type="checkbox"/> Male <input type="checkbox"/> Female	MARITAL STATUS <input type="checkbox"/> Married <input type="checkbox"/> Single	DATE OF BIRTH (DD-MM-YYYY) Click or tap here to enter text.
		NATIONALITY Click or tap here to enter text.
		COUNTRY Click or tap here to enter text.
MOBILE NUMBER (+Country Code-Mobile No.) Click or tap here to enter text.	EMAIL ADDRESS (Primary / Personal Email Address) Click or tap here to enter text.	

3. ORGANISATION INFORMATION

JOB POSITION Click or tap here to enter text.	DEPARTMENT Click or tap here to enter text.	ORGANISATION NAME Click or tap here to enter text.
ORGANISATION ADDRESS Click or tap here to enter text.		BUSINESS PHONE NO. (+Country Code-Phone No.) Click or tap here to enter text.

4. EDUCATIONAL, WORKING & KNOWLEDGE BACKGROUND

HIGHEST QUALIFICATION <input type="checkbox"/> Doctoral Degree <input type="checkbox"/> Diploma <input type="checkbox"/> Master Degree <input type="checkbox"/> Certificate <input type="checkbox"/> Bachelor Degree <input type="checkbox"/> Click or tap here to enter text.	FIELD OF EXPERTISE (Education, Administration, Engineering, ICT, etc.) Click or tap here to enter text.	
WORKING EXPERIENCE	Tick in appropriate box	If YES, how many year(s)
a. Working experience in TVET	<input type="checkbox"/> Yes <input type="checkbox"/> No	Click or tap here to enter text.
b. Working experience in Industry or related fields	<input type="checkbox"/> Yes <input type="checkbox"/> No	Click or tap here to enter text.

REGIONAL TRAINING PROGRAMME NOMINATION FORM



TEACHING, LANGUAGE AND IT SKILLS COMPETENCIES	Tick in appropriate box		
	Excellent	Good	Poor
a. Your competence in the general field of TVET teaching with pedagogical background	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Your competence in the course offered or related field	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Your competence in conducting innovative teaching and learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Your english language proficiency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. IT knowledge and skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PROFESSIONAL DEVELOPMENT	
a. Have you ever attended any Regional Training Programme(s) offered by SEAMEO VOTTECH as one of the Scholarship recipient?	<input type="checkbox"/> Yes <input type="checkbox"/> No
b. If YES, please indicate the course titled and year of participation Click or tap here to enter text.	

5. OTHERS

FLIGHT ARRANGEMENT (Departing from Home Country to the training venue Country)	
Departure Airport (City / Country)	Click or tap here to enter text.

DIETARY RESTRICTIONS
Click or tap here to enter text.

FOOD ALLERGIES, IF ANY
Click or tap here to enter text.

6. EMERGENCY CONTACT

NAME	RELATION	MOBILE NUMBER (+Country Code-Mobile No.)
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.

7. NOTE:

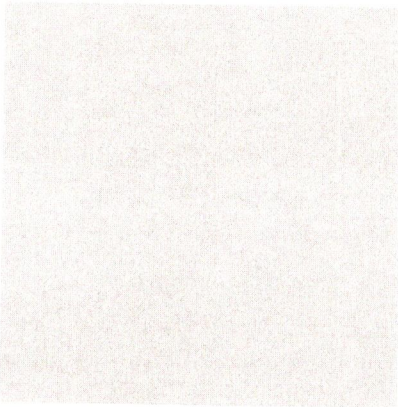
- a. **Registration.** The registration to the course should be submitted to your own respective Ministry / Organisation. Your Ministry / Organisation then submit the selected nominee(s) to SEAMEO VOTTECH. Any direct submission to SEAMEO VOTTECH will not be entertained.
- b. **Requirements.** Participant who is nominated to attend the course must be:
1. An existing trainer with basic technical expertise in the respective trade area
 2. Age - Should have a minimum of years of service remaining.
 3. Good command in English and IT skills
 4. Experience related to the training offered at least three years or more.
 5. Healthy and fit to travel to attend any training outside home country.

REGIONAL TRAINING PROGRAMME NOMINATION FORM



- c. **Procedures.** Any Scholarship recipient who has attended Regional Training Programme offered by SEAMEO VOCKETH will only be eligible to apply again for **similar course** THREE YEARS after the date of last attended course.
- d. **Travel documents.** Participants are required to submit a copy of scanned passport details to SEAMEO VOCKETH when training is outside home country (outbound). ***Please check the validity of the travel document has to be one year before the commence of the training.*** Kindly submit and upload your picture and scan passport details on next page together with this form

Please insert your picture below:



For International participants, please insert your scanned passport details below:

