

Jose Rizal University College of Computer Studies Engineering Computer Engineering Department

W9 - Webinar Report

CPE C409 – SEMINARS AND FIELDTRIPS

Submitted by:

Exiquiel John A. Pines

Submitted to:

Mrs. Monette Loy-A

Date Submitted:

October 9, 2023

Hosting Institution: Institute of Computer Engineers of the Philippines (ICpEP)

Seminar Title: Machine Learning on the Edge

Speaker: Dr. Vladimir Mariano

Seminar Date and Time: September 15, 2023 / 1:05 PM

Seminar Venue: Webinar via Zoom

On September 15, 2023, I attended the 3rd International Convention and 11th National Convention of the Institute of Computer Engineers of the Philippines. One of the talks was titled

"Machine Learning on the Edge". The talk was led by Dr. Vladimir Mariano, a Lead Faculty for

Technology and Innovation at YSEALI Academy at Fulbright University Vietnam.

The fields of artificial intelligence and machine learning are constantly developing in

today's quick-changing technological environment. Thanks to technological breakthroughs and the

emergence of the Internet of Things (IoT), what was once the purview of powerful machinery has

now been extended to small, linked devices. A new era of opportunities is being ushered in by

edgeML, edge AI, tinyML, and AIoT. With the Raspberry Pi Pico W and the Microblocks platform

as our primary teaching tools, we explore the fascinating possibilities of teaching machine learning

on the edge to 12-year-olds in this essay.

The Raspberry Pi Pico W is a great place to start for those who are new to machine learning.

This compact microcontroller is reasonably priced and provides a user-friendly platform with

enormous potential. It is especially well suited for educational settings due to its adaptability and

simplicity of use. The possibilities become essentially infinite when used in conjunction with

Microblocks, an educational software platform created to teach programming and electronics to

young students.

The chance to use MIT App Inventor is an exciting feature of teaching machine learning to 12-year-olds using the Raspberry Pi Pico W and Microblocks. Students can build Android applications using this platform that can command devices using the MQTT protocol. Students can create Android apps using MIT App Inventor without the need for sophisticated coding knowledge thanks to its user-friendly interface and intuitive features. This gives young students the tools they need to explore machine learning and get involved in app development in a useful way.

It is an exciting journey with great potential to teach machine learning on the edge to 12-year-olds using the Raspberry Pi Pico W, Microblocks, MIT App Inventor, and neural networks. We are preparing them to take the lead in an AI-driven future by fostering the curiosity and enthusiasm of young learners and giving them the tools to explore the world of technology. These programs not only encourage creativity but also help to advance the fascinating field of machine learning. We set out on a journey to inspire the upcoming generation of technology leaders and pioneers together.



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W9 - Webinar Evaluation

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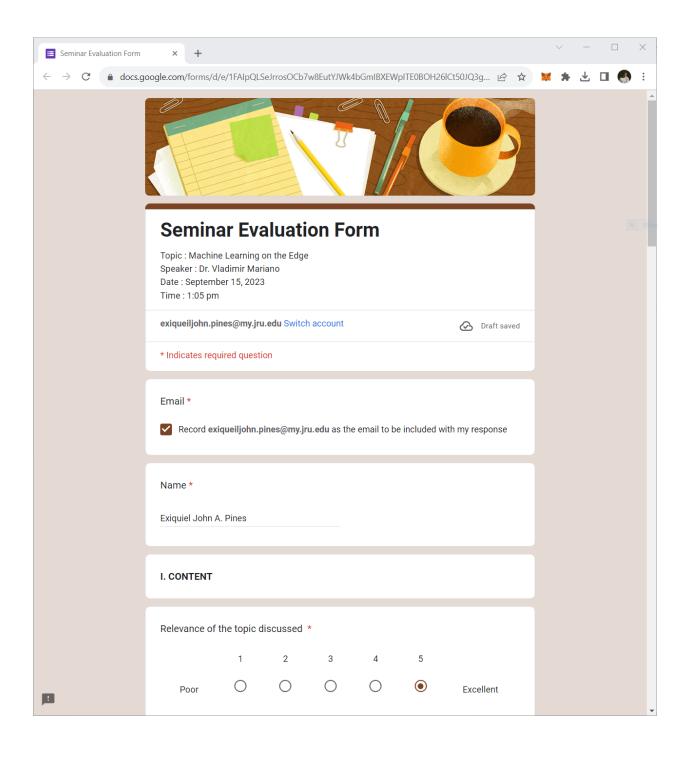
Exiquiel John A. Pines

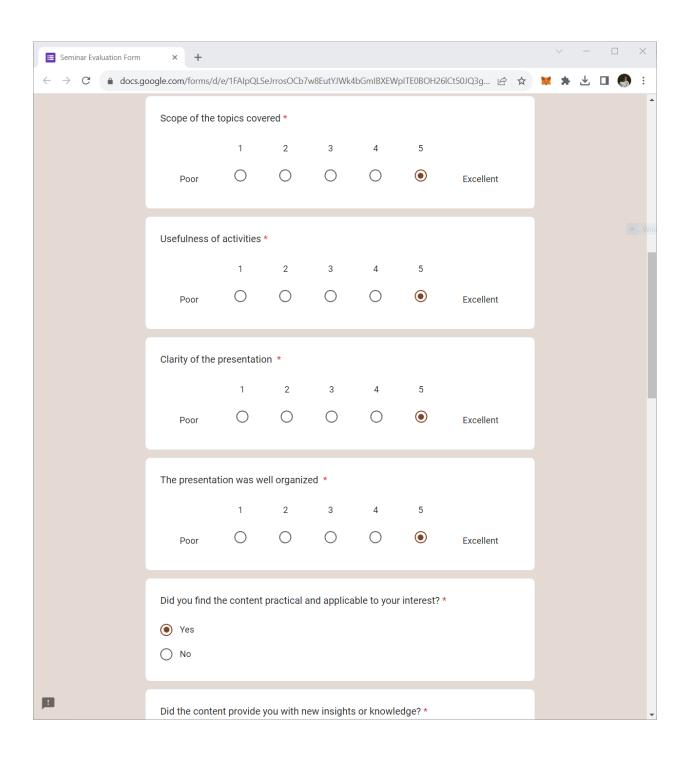
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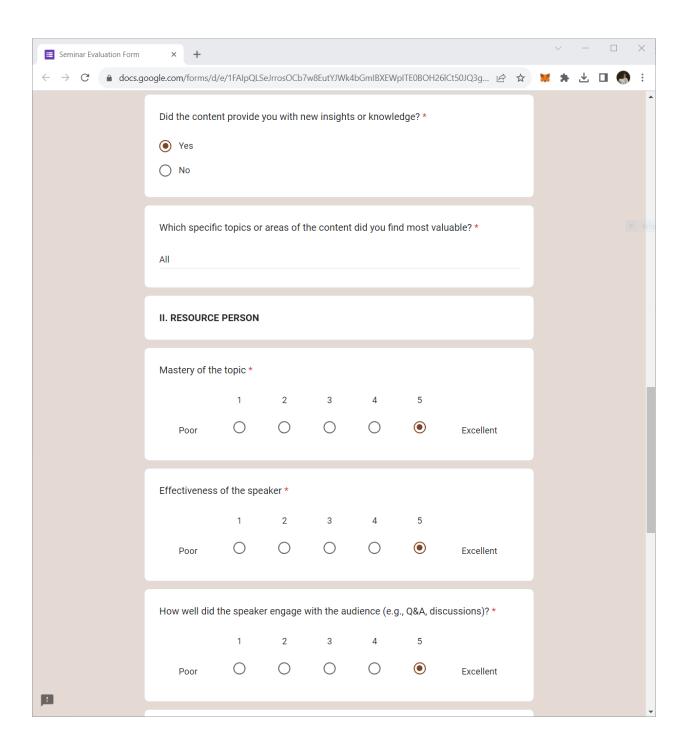
Mrs. Monette Loy-A

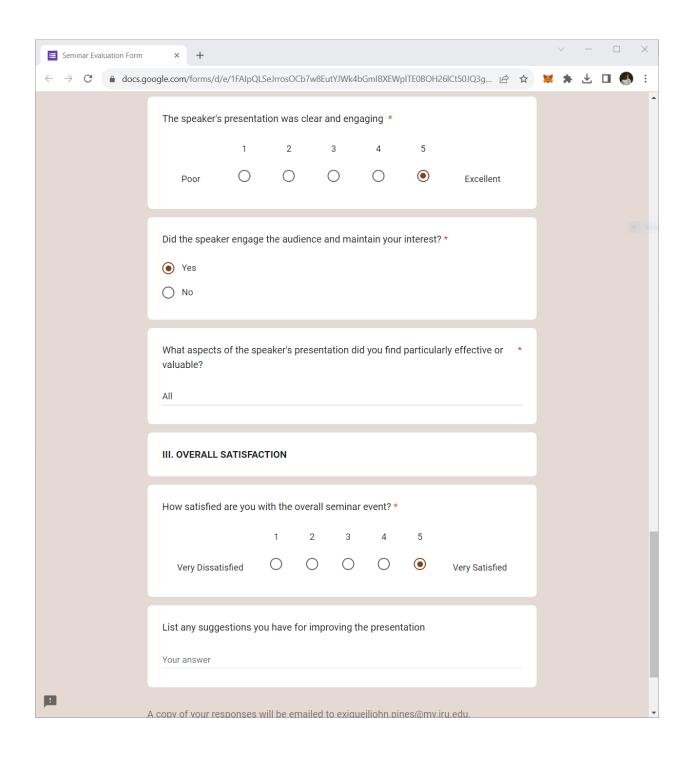
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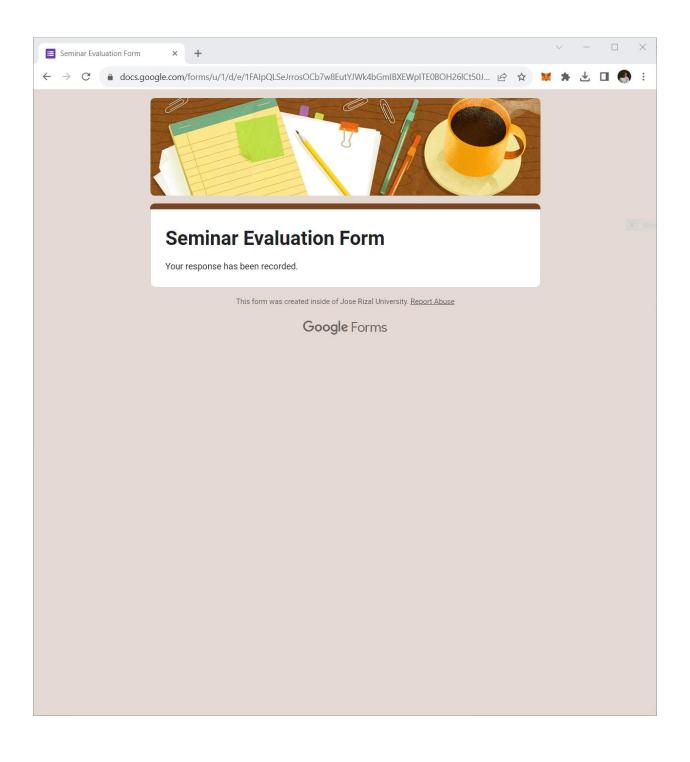
October 9, 2023















INSTITUTE OF COMPUTER ENGINEERS OF THE PHILIPPINES

presents this

Certificate of Participation

to

EXIQUIEL JOHN A. PINES

for his/her active and invaluable participation on
Topic: Machine Learning on the Edge
during the conduct of 3rd International Convention and 11th National Convention of the
Institute of Computer Engineers of the Philippines,
held from the 14th to the 15th of September 2023 at The Farm @ Carpenter Hill
Koronadal City, South Cotabato, Philippines, with the theme
"Engineering Digital Transformation for Smart and Sustainable Communities."

Given this 15th day of September 2023 at The Farm @ Carpenter Hill Koronadal City, South Cotabato, Philippines.

ENGR. PERCILA M. PANAGDATO, PCpE

Overall Chairman, ICpEP IntNatCon 2023 President, ICpEP-R12



DR. ROBEN A. JUANATAS, PCpE

National President, ICpEP