



# CADEFEST News

*The Project for Capacity Development of the Faculty of Engineering Science Technology, the National University Timor Lorosa'e (CADEFEST Project Phase II)*



Newsletter

Issue 6



**Hera, February 2021**

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## UP COMING EVENT:

- Research Online Discussion
- Seminars
- Special Lectures
- Report Presentation From JICA Long-Term Trainees



## Message from CADEFEST Project Manager

Welcome to the sixth edition of our project newsletter!

A warm greeting of New Year 2021 to our readers and hope we all can pass through this pandemic Covid-19 together as a big family. The year of 2020 was really a tough year for all of us as the cause of propagation of worldwide pandemic of Covid-19. This pandemic is also affect our project activities with some programs that have been scheduled not run as planned. However, we would like to thank you all for your support, collaboration and encouragement that we still performed some activities within the project.

To let our readers keep updated, we continue to share various activities performed in 2020 at the Faculty of Engineering, Science, and Technology (FoEST) in this newsletter. As the project manager and the Dean of FoEST, I am proud of the progress we have achieved and looking forward to achieving the best in developing this faculty to be the center of excellence of science and technology in this country.



With the collaboration of our readers, we hope that you can share our progress with others and provide us suggestions and ideas for developing this faculty furthermore.

Please enjoy reading our sixth edition!

Dr. Eng. Ruben Jerónimo Freitas

Project Manager, CADEFEST Project Phase II

Dean, Faculty of Engineering Science and Technology-UNTL

## Message From Chairman of Japanese Supporting Universities



Prof. Shoichi Kiyokawa  
Chairman of Japanese Supporting  
Universities

On behalf of Japanese Supporting University, I congratulate JICA CADEFEST Project Phase II and Faculty of Engineering, Science and Technology, UNTL for launching third volume of TAJST Journal. Even in the hard time of Pandemic Covid-19, some lecturers continued to communicate with Japanese professors through online.

Especially, I am very glad that lectures of Geology and Petroleum Department have submitted their research papers to TAJST for their first time.

Although there are many restrictions caused by Covid-19, we, Japanese supporting universities continue to support education and research activities as much as we can.

We hope that the things all return to normal in this year so that we can proceed to conduct JICA training for lectures and dispatch Japanese experts for achieving our project purpose in CADEFEST project phase II.

## Message From Chief of Cooperation Unit



Cândia Monteiro, Ph.D.  
Chief of Cooperation Unit, Vice  
Dean Cooperation and Research  
Affairs-FoEST

In this Newsletter issue, the Cooperation Units (CU) has done some activities such as launched the Third Volume of Timorese Academic Journal of Science and Technology (TAJST), APORTIL Seminar, REER Meeting, FoEST Seminars, and the International Conference of UNTL under collaboration and management of CU. Moreover, Cooperation Units also has collaborated with external partners for material testing in Mechanical Lab, COVID-19 Prevention facilities donation by the Mercy Corps, and JICA Dili.

I appreciate those who have contributed to all of the aforementioned activities related to CU, especially my gratitude for lecturers/authors, reviewers, and editors for their contribution to the issue of TAJST Volume 3 despite the limitation of activities and movement under the state of emergency rule for Covid-19 prevention.

As a chairman of CU, I encourage all lecturers to do more research this year and contribute to the next volume of TAJST.

## The UNTL Anniversary Ceremony



The UNTL Anniversary Ceremony of 20th Years and TAJST third Volume Publication

On 17<sup>th</sup> November 2020, the UNTL Anniversary Ceremony of 20th Years was held in Auditorium of the Faculty of Engineering, Science and Technology, Hera Campus. The participants in the ceremony were Dra. Maria Filomena Lay Guterres, Director General of higher Education, Science and Culture, Dr. Armindo Maia, Ministry of Education, Youth and Sport, Prof. Dr. Francisco Miguel Martins, Rector National University Timor Lorosa'e-UNTL, Dr. Ruben Jerónimo Freitas, Dean Faculty of Engineering Science and technology-UNTL, Deans, Vice Deans, Directors and lecturers from others faculties.

Dra. Maria Filomena Lay Guterres, Dr. Armindo Maia, and Prof. Dr. Francisco Miguel Martins made opening speeches.

After the ceremony, Dr. Ruben Jerónimo Freitas, Dean Faculty of Engineering, Science and Technology, UNTL made speech by launched the Third volume of Timorese Academic Journal of Science and Technology (TAJST) and officially handed the TAJST Journal to VIP guests.

## Handover Ceremony of Covid-19 Prevention Equipment



The Handover Ceremony of Covid-19 Prevention Equipment from JICA to FoEST

On 8<sup>th</sup> October 2020, the handover ceremony of Covid-19 prevention equipment held in Auditorium, Hera Campus. The equipment was supported by Japanese International Cooperation Agency (JICA) to Faculty of Engineering, Science and technology, UNTL to assist Timor-Leste against global pandemic.

The participants in the ceremony were Mr. Ko Goto, Chief Representative of JICA Timor-Leste, Prof. Francisco Miguel Martins, Rector of UNTL, Dean, Vice Deans, Directors, Vice Directors, lecturers and students of FoEST.

The equipment were sanitizers, maskers, buckets, liquid soap, thermo scanner disinfectant liquid tissues, and others hygiene facilities. In the ceremony Mr. Ko Goto and Rector are cutting ribbon for starting to utilize the sanitation facilities.

## Students Exposition

On 17<sup>th</sup> November 2020, the students of the National University of Timor Lorosa'e (UNTL) held exposition to celebrate 20<sup>th</sup> years of UNTL anniversary in Faculty of Engineering, Science and Technology, Hera Campus.

The exposition was conducted by students from all faculties to show their product design and posters. The participants visited the exposition after inauguration ceremony of the new chapel named "Saint Jose Chapel" in Hera campus.



Students Exposition and new chapel Inauguration

## The 11<sup>th</sup> SC Meeting



The 11<sup>th</sup> SC Meeting

The 11<sup>th</sup> Steering Committee Meeting was held on 10<sup>th</sup> March 2020 in Meeting Room new building, Hera Campus. The participants were Dr. Ruben Jerónimo Freitas, Dean of Faculty of Engineering Science and Technology, UNTL, Prof. Dr. Koichi Shimakawa, Chief Advisor of JICA CADEFEST Project, Vice Deans and structures of Departments. The aims of this meeting were to monitor, evaluate and review the project activities in last three months and to plan and confirm the project activities for next three month. Participants exchanged their views and discussed countermeasures to solve issues for implementing the Project.

## The Project Meeting



Project Meeting Group Photo

On 3<sup>rd</sup> June 2020, Online Meeting of the Project of Capacity Development of the Faculty of Engineering, Science and Technology Phase II held in JICA Office Dili, Timor-Leste. The participants in the meeting were, Mr. Masafumi Nagaishi, Chief Representative JICA Timor-Leste, Ms. Nukata Sena, Technical and Higher Education Team, Higher

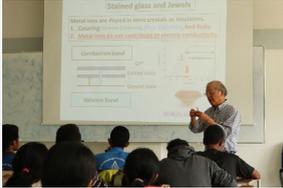
Education and Social Security Group Human Development Department, JICA Headquarter Japan, Prof. Koichi Shimakawa, Chief Advisor of JICA CADEFEST, Dean and Vice Deans.

The Online Meeting were conducted to update the situation in Timor-Leste and evaluate the project activities for next six months. Participants exchanged their views and discussed countermeasures to solve issues for implementing the Project.

# Special Lectures

## Electronics and Electrical Engineering

### Transparent Conductive Oxides



Prof. Mitsuo Yamaga  
Special Lecture

On 6<sup>th</sup> March 2020, Prof. Mitsuo Yamaga from Gifu University conducted special lecture in Electronics laboratory

to Electronics and Electrical Engineering students. The title of his special lecture was “Transparent Conductive Oxides”. In the special lecture Prof. Yamaga share his knowledge related to the topic and students were very motivated to study this field.

### Energy by Laser Technology



Prof. Hiroki Yoshida  
Special Lecture

On 6<sup>th</sup> March 2020, Prof. Hiroki Yoshida from Gifu University conducted special lecture in Electron-

ics laboratory to Electronics and Electrical Engineering students. The title of his special lecture was “Energy by Laser Technology”. The students were happy to have this special lecture and many questions were raised.

## JICA Experts Activities

### Japanese Professor Dispatch

#### Civil Engineering



From February to March 2020, Prof. Masahiko Sekine, from Yamaguchi University and Prof. Hidehiko Kazama from Saitama University, came to Hera campus. They were dispatched as JICA experts to support Civil Engineering Department, Faculty of Engineering, Science and Technology-UNTL.

The Professors supported Civil Engineering lecturers research and supported improving laboratory experiment. They also discussed with Civil Engineering lectures for reviewing their teaching subjects content and syllabus. Other than that, they also advised final students thesis to find a way for conducting their research topic.

## Electronics and Electrical Engineering



From February to March 2020, Prof. Mitsuo Yamaga and Prof. Hiroki Yoshida came to Timor-Leste as JICA experts from Gifu University Japan. The two Professors came to support Electronics and Electrical Engineering Department, Faculty of Engineering, Science and Technology-UNTL.

The Professors supported lecturer's researches and provided laboratory equipment training for Electronics and Electrical Department staffs to increase their knowledge for practical subjects. Professors also join the practical class to instruct how to conduct laboratory experiment to Electronics and Electrical Engineering students.

Other than that, Professors also discussed about the syllabus of teaching subjects.



## Geology and Petroleum Engineering

On November 2019, Prof. Shoichi Kiyokawa and Prof. Atsuko Yamazaki came to Timor-Leste as JICA experts from Kyushu University Japan. The Professors came to support Geology and Petroleum Engineering Department, Faculty of Engineering, Science and Technology-UNTL.

The Professors discussed with lecturers their research plan and preparation of their short term training in Japan. The Professors visited Atauro Island for field trip and collecting samples for their research.

The Professors also joined the practical class to teach collected sample management and laboratories equipment operation for Geology and Petroleum Engineering staffs.



## Online Research Discussion

### Mechanical Engineering



From October to December 2020, Prof. Tomonao Kobayashi from Gifu University conducted online discussion with lecturers of Mechanical Engineering department, Faculty of Engineering, Science and Technology, UNTL.

Due to pandemic Covid-19, the Professors can not come to Timor-Leste but they still can support Mechanical lecturers' research through online discussion.

### Civil Engineering



From October to December 2020, Prof. Shinichiro Nakashima from Yamaguchi University, and Prof. Hidehiko Kazama from Saitama University, conducted online discussion with lecturers of Civil Engineering department, Faculty of Engineering, Science and Technology, UNTL.

The Professors supported their research and teaching materials review through online discussion.

### Electrical Engineering



From October to December 2020, Japanese Professors from Gifu University conducted online discussion with lecturers of Electronics and Electrical Engineering department, Faculty of Engineering, Science and Technology, UNTL.

Japanese Professors and lecturers jointly developed lecturers' notes for two Electrical subjects. In addition they also proceed to write research articles.

### Informatics Engineering



From October to December 2020, three Professors from Gifu University such as Prof. Hidekazu Fukai, Prof. Satoshi Tamura and Prof. Shan Lu conducted online discussion with lecturers of Informatics Engineering department, FoEST-UNTL.

Through their online discussion, three research manuscripts were developed and published in TAJST Volume three. Further more, one lectures' note was developed.

## Geology and Petroleum Engineering

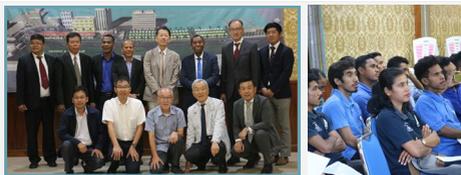
From October to December 2020, Prof. Atsuko Yamazaki, Kyushu University and Prof. Satoru Kojima from Gifu University, conducted online discussion with lecturers of Geology and Petroleum Department, Faculty of Engineering, Science and Technology, UNTL.

The Professors supported Geology and Petroleum lecturers to publish manuscripts on TAJST Volume three. The preparation of long term training also discussed.



## Cooperation Unit Activities

### APORTIL Seminar



On 29<sup>th</sup> January 2020, Civil Engineering, Faculty of Engineering, Science and Technology-UNTL participated in APORTIL Seminar on “Joint Seminar on Port development Plan and Facility, Port Technical Exchange Program Between Port in Cambodia and Timor-Leste” in hall of Ministry of Transport and Communication in Caicoli, Dili, Timor-Leste.

The Participants in seminar were Mr. Jose Agostinho da Silva, Minister of transport and Communication, Mr. Kenji Sasa, JICA Expert for APORTIL and counterparts of Cambodia Port.

### REER Meeting



On 23<sup>th</sup> September 2020, the Renewable Energy and Environment Research (REER) Group held meeting in JICA Office Dili Timor-Leste via online between Timor-Leste and Japan. The objectives of the meeting were to appoint the new chairman of REER Group and share the progress of research activities.

The participants in the meeting were Prof. Koichi Shimakawa, Chief advisor JICA CADEFEST, Prof. Tomonao Kobayashi, REER advisor, Dr. Ruben Jeronimo Freitas, Dean, Faculty of Engineering, Science and Technology, UNTL and REER members.

During the meeting Mr. Jose Maria Xavier was appointed as new chairman of REER group. Mr. Domingos de Sousa Freitas presented his research on “ Study on Optimization of Water Cross Flow Turbine in Enhancing Power Voltage ”.

## Feasibility Study Seminar



The Viability Study Seminar

On 5<sup>th</sup> March 2020, the Road Infrastructure Monitoring System (RIMS) group was invited as representing from Faculty of Engineering, Science and Technology, UNTL on feasibility study Seminar in hall of Minister of Finance, Dili.

The member of RIMS group were Mr. Mariano Renato M. da Cruz, lecturer of Civil engineering, Mr. Frederico Soares Cabral and Mr. Vosco Pereira, lecturers of Informatics Engineering. Mr. Mariano presented on “Integrated Road Infrastructure Monitoring System (IRIMS) Using Artificial Intelligent and low cost Technology”.

The seminar were attending by Governments Institutions that related to the Infrastructure such as Minister of Public Work, National Development Agency and others.

## FoEST Seminar

On 10<sup>th</sup> November 2020, Faculty of Engineering Science and Technology, UNTL held seminar in Auditorium Hera Campus. The Seminar was held to celebrate 12<sup>th</sup> November, Santa Cruz Tragedy with the topic “Spirit of Youth Resistance Inspire Engineering Students for Timor-Leste Future”.

The presenters in the seminar were Mr. Nicolau Freitas Belo, Vice Minister of Public Works and Mr. Mariano Renato M. da Cruz, Executive Director of National Agency Development (AND).

After the seminar, the participants were invited to visit students exposition to observe the students’ product design and posters of final students research.



## Civil Seminar



On 23<sup>th</sup> October 2020, Civil Engineering Department, Faculty of Engineering Science and Technology, UNTL held seminar in Auditorium Hera Campus with the topic “Standard Unit Price”.

The presenters in the seminar were Mr. Mariano Renato M. da Cruz, Executive Director of National Agency Development (AND) and his directors.



The participants in the seminar were Lecturers and Students of Civil Engineering. The students asked many questions related to the presentation, and they discussed to make one standard of procurement and wages for Engineers and laborers in Timor-Leste.

## Geology and Petroleum Seminar



On 27<sup>th</sup> November 2020, Geology and Petroleum Engineering department held seminar in Auditorium Hera Campus for commemorating 45<sup>th</sup> of Proclamation of Independence with the topic “Timor-Leste Future from Perspective of Petroleum and Minerals resources”.

The speaker in the seminar were Mr. Florentino Soares Ferreira, Preseident of ANPM, Mr. Gabriel Aparicio, President of IPG and Mr. Antonio Loiola de Sousa, President of Timor GAP.

The participants in the seminar were mainly students of FoEST-UNTL and some students of Geology department from Universidade Oriental, UNITAL also joined. The presentation were attractive and very interested and many questions and comments were raised from participants.

## Scientific Conference in Timor-Leste



Mr. Frederico Soares Cabral, Mr. Jose Maria Xavier and Mr. Osvaldo da Cruz Sarmento made Presentation on Scientific Conference in Timor-Leste

On 26<sup>th</sup> November 2020, the Scientific Conference on “Reinforce the role of UNTL in the Process of Creating Wealth and Well-Being in Timor-Leste” held in auditorium, Faculty of Engineering, Science and Technology-UNTL.

The participants in scientific conference were Prof. Francisco Miguel Martins, Rector of UNTL, Pro-Rectors, Deans, Vice-Deans, Directors, lecturers, staffs and students of UNTL.

The conference divided in four different groups such as Higher Education and quality, Natural Science and Engineering Science, Social Science, Political and Economics and Human Science and Law.

In this conference the International speakers were from Malaysia, Indonesia, Portugal, Australia, Brazil, and they presented through teleconference. For the national speakers they were from Bank Central Timor-Leste (BCTL), UN Women and lecturers from UNTL.

Especially presenter from FoEST-UNTL, Mr. Frederico Soares Cabral, Informatics Engineering, presented on “Road Roughness Estimation Using Smartphone Sensor”, Mr. Osvaldo da Cruz Sarmento, Geology and Petroleum Engineering presented on “Effect of Diagnosis on Microstructure of Fossil Coral Skeletons From Atauro Island, Timor-Leste” and Mr. Jose Maria Xavier, Mechanical Engineering presented on “Feasibility Study On Solar PV Potential of Island of Atauro”.

# Other Activities

## Osaka Gas Scholarship Presentation



On 15<sup>th</sup> July 2020, the Osaka Gas Foundation of International Culture Exchange (OGFICE) scholarship presentation was held in Auditorium of the Faculty of Engineering, Science and Technology-UNTL, Hera Campus.

The thirty students from FoEST-UNTL, awarded based on their academic performance. The scholarship students were happy to received financial support from Osaka Gas and then pledged the study hard to contribute the society in the future.

## Lecture Note Handover



The Lecturer note of “Analyze Math 1 “ and Telecommunication System” were handed over by Mr. Carlito Pinto from Informatics engineering and Mr. Vital Ximenes from Electronics and Electrical Engineering, to their Departments and Faculty and they will utilize the lecturer note to teach their students.

## Equipment Handover

The JICA CADEFEST Project Phase II handed over the equipment during July and November, 2020 to Mechanical Engineering Department, Civil Engineering Department and Electronics and Electrical Engineering Department.

The equipment was expected to be utilized for research and education.



# Graduate Tracer Survey

On November 2019, the graduate tracer survey has been conducted and the result is shown as the table below

Graduation Month / Year	Total	Responded (A)	No Response	Employed (B)	Unemployed	Employment Rate B/A X 100
November 2016	101	48	53	43	5	90%
May 2017	67	53	14	40	13	75%
November 2017	95	66	29	48	18	73%
May 2018	87	53	34	38	15	72%
November 2018	80	50	30	31	19	62%
June 2019	92	74	18	27	47	36%
December 2019	87	67	20	30	37	45%
September 2020	61	48	13	10	38	21%



*The employment rates for those who graduated few months ago (September 2020) a year ago (December 2019), one and half year (June 2019), two year ago (November 2018), two and half year (May 2018), three years ago (November 2017), three and half years ago (May 2017) and four years ago could achieve 90%, 75%, 73%, 72%, 62%, 36%, 45%, and 21% respectively. The current students in Hera Campus are expected to prepare well to get job after the graduation to improve this situation. We here express our appreciation towards to the graduates who responded this tracer survey.*

## JICA INTERNS

On 18<sup>th</sup> February 2020, Ms. Moeka Watanabe from Sofia University came to Timor-Leste as a JICA Intern. She stayed for one month to support teaching basic math in the FoEST-UNTIL. She taught basic math and calculus to semester 1 and 3 students of Civil Engineering and she also conducted extra class for those want to improve their knowledge in basic math and also support physics to students who needed her help.

On 6<sup>th</sup> March 2020, Ms. Akiko Tanimoto from Kyoto University came to Timor-Leste as a JICA Intern. She came to support students to study basic math in the Faculty of Engineering Science and Technology, UNTL. She taught basic math to semester 3 students of Informatics Engineering. Other than that, she also supported extra class for students who wants to further study.



The JICA interns, Moeka San and Akiko San are teaching the basic math to students of Faculty of Engineering, Science and Technology, UNTL.



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**Downloadable**

**Up Coming Event**

- ◆ Research Online Discussion
- ◆ Seminars
- ◆ Special Lecturers
- ◆ Report Presentation from JICA Long-Term Trainees



The UNTL Drum Band played the National Song in Hera Campus to Celebrate 20<sup>th</sup> Anniversary of UNTL

*Editor are happy to receive suggestion and comments to improve this news.*