



SUMMER COURSE TIN 2023

SUSTAINABLE AGROINDUSTRY IN RURAL AREAS

“Adding Values to Local Commodities In
CHOCOTEA”

July, 3rd – 30th 2023

PROGRAM BOOK



ORGANIZER



Hosted
by

IPB University

Villanova
University

Colorado
School of
Mines

Padjajaran
University



Supported
by

Universiti
Putra
Malaysia

Maejo
University

Rhine Waal
University

Kasetsart
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Indonesia
Research
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Crops

Ranin Coffee
House

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Chocolate

Laresolo Tea
House

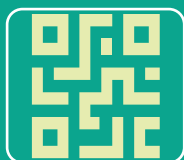
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COURSE INFORMATION



Course Name

- Sustainable Agroindustry in Rural Areas



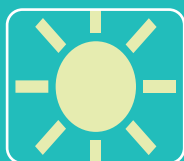
Course Code

- IPB300



Credit

- 3 Credits



Type of Course

- Summer Course



Duration

- July 3rd – 30th , 2023



Place : Bogor, Indonesia

- Hybrid (2 weeks online & 2 week offline/in site)

COURSE DESCRIPTION



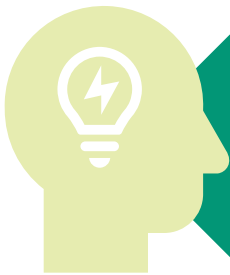
Sustainable Agroindustry in Rural Areas

IPB300

This course is design to provide students with knowledge and abilities to design components or systems of sustainable rural agroindustry that built upon the integration between process engineering, industrial system engineering and environmental engineering and management. Students learn about development of agroindustrial products and processes that add values to local commodities, systems and management that supports rural agroindustries, and development of Agroindustrial cleaner agroindustry. Students will also be provided with design thinking with an application to agroindustry development.

LEARNING OUTCOMES

Students are expected to be:



Able to identify, analyze and solve problems in agroindustry that cover aspects of process technology, industrial management, systems engineering, and environmental engineering and management in the economic, environmental, and societal contexts as well as other contemporary issues



Able to design a sustainable rural Agroindustrial system/component, process and product by applying engineering concepts to solve engineering problems through experiential learning.



Able to recognize the needs and have the ability to be involved in lifelong learning

RESOURCE PERSONS

SUSTAINABILITY

Prof. Jordan Ermilio
(Villanova University)

Prof. Justinus Satrio
(Villanova University)

Asst. Prof. Julakorn Panatuk
(Maejo University)

Prof. Nastiti S. Indrasti
(IPB University)

Prof. Matthias Kleinke
(Rhein Waal University)

Prof. Suprihatin
(IPB University)

Prof. M. Romli (IPB University)

FACILITATOR

Prof. Endang Warsiki
(IPB University)

Dr. Elisa Anggraeni
(IPB University)

M. Arif Darmawan, MSi
(IPB University)

Deasy Kartika R, M.T.
(IPB University)

Jantamas Wantasin, PhD.
(Maejo University)

Dr. Efri Madarwati, S.TP., M.T.
(Padjajaran University)

CHOCOLATE

Dr. I.W. Alit A. Wiguna
Cau Chocolate

Dr. Teddy Dirhamsyah SP., MAB
Indonesia Research Institute
of Industrial and Beverage
Crops

Indah Sulistyorini, SP., M.Si
Indonesia Research Institute
of Industrial and Beverage
Crops

COFFEE

Ir. Tejo Pramono
Ranin Coffee House

Ir. Uji Sapitu
Ranin Coffee House

Mr. Ivan Hartanto
Belift
Tea & Coffee Farmers

Dr. Sunate Subkhar
Maejo University

DESIGN THINKING

Prof. Mirna Mattjik
(Colorado School of
Mines)
Dr. Chananpat R.
(Maejo University)

TEA

Mr. Bambang Laresolo
Laresolo Tea House

Prof. Yaya Rukayadi
UPM Malaysia

Prof. Titi C. Sunarti
IPB University

STUDENT MENTORS

Student mentors is assigned to assist the Summer Course participants in achieving the course goal. Student mentors will help participants with academic, personal, and professional issues, as well as give emotional support. Student mentors are recruited from the students who already took the summer course in previous year or students who already finished a certain courses with good grade.

SUPPORTS

Januardi, PhD.
(IPB University)

Yeyen Lorenza, MSi.
(Kasetsart University)

Lolita Anggarini, SE, M.M.
(IPB University)

SCHEDULE

NO	DATE	TIME// METHOD	TOPICS	RESOURCE PERSON
1	Monday 3 rd July 2023	07.00 - 10.00 am UTC+7 Online	Opening Ceremony • “Agroindustrial Engineering Talk: Sustainable Agroindustry in Rural Area” • Getting to know	<ul style="list-style-type: none"> • Prof. Practice. Jordan Erlimio (Villanova University) • Army Larkin (PR3 USA) • Director of International Education (IPB University)
2	Tuesday 4 th July 2023	07.00 – 09.00 am (UTC+7) Online	<ul style="list-style-type: none"> • Designers/Agro-industrialist and Sustainable Development • Assignments 	<ul style="list-style-type: none"> • Prof. M. Romli (IPB University) • Dr. Elisa Anggraeni (IPB University)
3	Wednesday 5 th July 2023	07.00 – 09.00 am (UTC+7) Online	Cleaner Industrial Production in Chocotea Industry	<ul style="list-style-type: none"> • Prof. Mattias Kleinke (Rhein Waal University) • Prof. Nastiti Siswi Indrasti (IPB University)
4	Thursday 6 th July 2023	07.00 – 09.00 am (UTC+7) Online	Sustainable Design in Chocotea Industry	<ul style="list-style-type: none"> • Prof. Teach. Mirna Mattjik (Colorado School of Mines) • Dr. Chananpat Rardniyom (Maejo University)
5	Friday 7 th July 2023 Online	07.00 – 09.00 am UTC+7)	Assignment 1: Learn from sustainable design in Chocotea Industry globally	<ul style="list-style-type: none"> • Dr. Elisa Anggraeni, S.TP., MSc. (IPB University) • Prof. Dr. Endang Warsiki, S.TP., MSi (IPB University)
6	Saturday 8 th July 2023	07.00 – 10.00 am UTC+7 Online	Independent work	<ul style="list-style-type: none"> • Januardi, S.TP., M.T., PhD (IPB University) • Yeyen Lorenza, S.Pi., MSi. (Kasetsrat University) • Students Mentors

SCHEDULE

NO	DATE	TIME/ METHOD	TOPICS	RESOURCE PERSON
7	Monday 10 th July 2023	07.00 - 10.00 am UTC+7 Online	Presentation of Assignment 1	<ul style="list-style-type: none"> • Dr. Elisa Anggraeni, S.TP., MSc. (IPB University) • Assist. Prof. Dr. Julakorn Panatuk (Maejo University) • Prof. Dr. Endang Warsiki, S.TP., Msi. (IPB University) • Jantamas Wantasin, PhD. (Maejo University) • Deasy Kartika R., S.TP., M.T. • M. Arif Darmawan, S.TP., M.T.
8	Tuesday 11 th July 2023	07.00 – 10.00 pm (UTC+7) Online	Materials & Transformation in Chocotea Industry)	<ul style="list-style-type: none"> • Assoc. Prof. Dr. Yaya Rukayadi (Universiti Putra Malaysia) • Prof. Dr. Ir. Titi Candra Sunarti, MSi. (IPB University) • Dr. Efri Madarwati, S.TP., MSi (Padjajaran University)
9	Wednesday 12 th July 2023	07.00 – 10.00 am (UTC+7) Online	Sustainable business in : <ul style="list-style-type: none"> • Chocolate • Coffee • Tea 	Practitioners <ul style="list-style-type: none"> • Dr. I.W. Alit A. Wiguna, MSi (Cau Chocolate) • Ir. Tejo Pramono/Ir. Uji Sapitu (Ranin Coffee House) • Bambang Laresolo (Tea House Laresolo)
10	Thursday 13 th July 2023	07.00 – 10.00 am (UTC+7) Online	Water and Energy Nexus in Chocotea Industry	<ul style="list-style-type: none"> • Assoc. Prof. Justinus Satrio (Villanova University)

SCHEDULE

NO	DATE/ METHOD	TIME	TOPICS	RESOURCE PERSON
11	Friday 14 th July 2023	Departure Preparation		<ul style="list-style-type: none">• Prof. Dr. Endang Warsiki, S.TP., MSi. (IPB University)• Januardi, S.TP., M.T., PhD. IPB University)• Lolita Anggarini, S.E., (IPB University)
12	Saturday-Sunday 15 th – 16 th July 2023	Arrival Orientation Check in/Social and Cultural Activities		
13	Monday 17 rd July 2023	09.00 am – 03.00 pm (UTC+7) Offline	<ul style="list-style-type: none">• Team Building	<ul style="list-style-type: none">• Prof. Dr. Endang Warsiki, S.TP., MSi. (IPB University)• Januardi, S.TP., M.T., PhD. (IPB University)Deasy Kartika R., S.TP., Msi. (IPB University)
14	Tuesday 18 th July 2023	09.00 am – 05.00 pm (UTC+7) Hybrid	<ul style="list-style-type: none">• Depart to Boot Camp/Bandung/Pangalengan	<ul style="list-style-type: none">• Dr. Elisa Anggraeni, S.TP., MSc. (IPB University)• Januardi, S.TP., M.T. (IPB University)• Deasy Kartika R., S.TP., MSi. (IPB University)• Supriyanto
15	Wednesday-Thursday 19 th – 20 th July 2023	07.00 am – 09.00 pm	Immersion Day	<ul style="list-style-type: none">• Dr. Elisa Anggraeni, S.TP., MSc. (IPB University)• Dr. Efry Madarwati, S.TP., MSi (Padjajaran University)• Januardi, S.TP., M.T., PhD (IPB University)• Devi Maulida Rahmah, STP., MT (Padjajaran University)

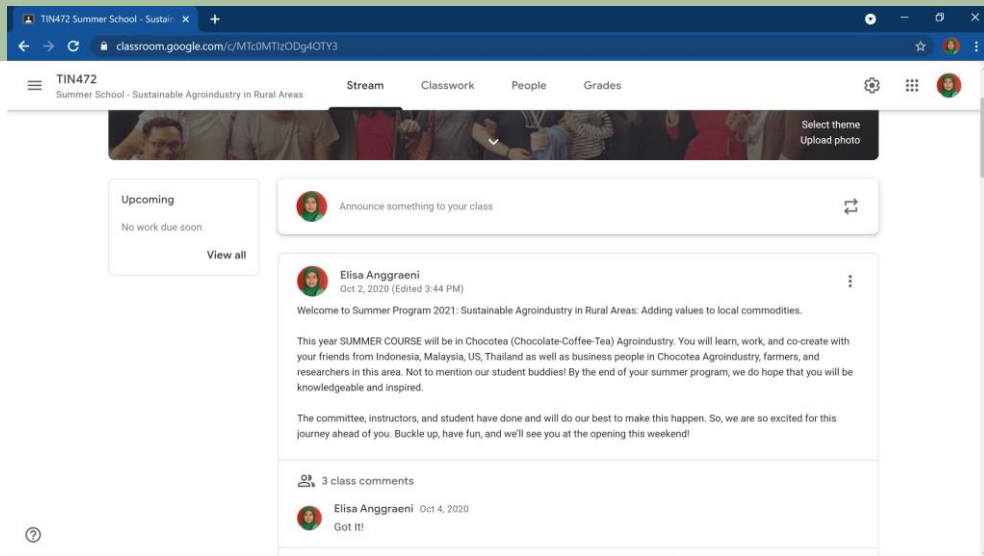
SCHEDULE

NO 7	DATE	TIME// METHOD	TOPICS	RESOURCE PERSON
16	Friday 21 st July 2023	07.00 am – 05.00 pm (UTC+7) Offline	<ul style="list-style-type: none"> • Back to IPB/Reflection 	<ul style="list-style-type: none"> • Dr. Elisa Anggraeni, S.TP., MSc. (IPB University) • Januardi, S.TP., M.T. (IPB University) • Deasy Kartika R., S.TP., MSi. (IPB University) • Supriyanto
17	Saturday 22 th July 2023	07.00 am – 05.00 pm (UTC+7) Offline	Design Sprint Day 1 : Map (Understand and formulate	<ul style="list-style-type: none"> • Facilitators • Student Mentors
18	Sunday 23 th July 2023	07.00 am- 05.00 pm	Social activities	
19	Monday 24 th July 2023	07.00 am – 05.00 pm (UTC+7) Offline	Design Sprint 2: Sketch (Ideation - Generate alternative designs/solutions)	<ul style="list-style-type: none"> • Facilitators • Student Mentors
20	Tuesday 25 th July 2023	07.00 am – 05.00 pm (UTC+7) Offline	Design Sprint 3: Decide (Select the best design/solution concept)	<ul style="list-style-type: none"> • Facilitators • Student Mentors
21	Wednesday 26 th July 2023	07.00 am – 05.00 pm (UTC+7) Offline	Design Sprint Day 4: Prototype Simulate a finished product (goods or service) for your customers	<ul style="list-style-type: none"> • Facilitators • Student Mentors

SCHEDULE

NO	DATE	TIME/ METHOD	TOPICS	RESOURCE PERSON
22	Thursday 27 st July 2023 Offline	07.00 am – 05.00 pm (UTC+7) Offline	Design Sprint Day 5: Test Preparing your Pitch	<ul style="list-style-type: none">• Facilitators• Mentors
23	Friday 28 th July 2023 Offline	07.00 am – 05.00 pm (UTC+7) Offline	IDEA PITCH COMPETITION	<ul style="list-style-type: none">• Judges• facilitators• Mentors
24	Saturday 29 th July 2023 Offline	09.00 am – 12.00 am (UTC+7) Offline	Closing Ceremony Winner Awarding Performances	
26	Sunday 30 th July 2023 Offline	CHECK OUT		<ul style="list-style-type: none">• Prof. Dr. Endang Warsiki, S.TP., MSi. (IPB University)• Januardi, S.TP., M.T., PhD. (IPB University)• Lolita Anggarini, SE., M.M. (IPB University).

LOGISTICS: Doing it online



For this year, we are going to conduct our summer program hybrid.

In addition to class meetings, practical works and immersion in the field, we are going to use the following tools below. If you are not familiar yet, the following are videos and tools to help you get started:

1. Zoom Meetings for our synchronous meetings
<https://www.youtube.com/watch?v=hIkCmbvAHQQ>

2. Google Classroom for our asynchronous meeting (materials, assignments, chats, or getting feedbacks)
<https://www.youtube.com/watch?v=-HasLAg6Vcg>

3. Google Jamboard for your collaborative works such as brainstorming during idea generation
<https://www.youtube.com/watch?v=S9m4HCjOkcA>

4. Other communication tools such as WhatsApp and emails (information will follow)

- a. 5. Youtube Channel tin-ipb
- b. Google Drive.

LOGISTICS: Reading Materials

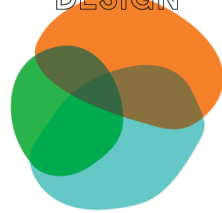
SUMMER COURSE SERIES



SUSTAINABLE AGROINDUSTRY IN RURAL AREAS

Adding Values to Local Commodities in CHOCOTEA

THE FIELD GUIDE TO HUMAN- CENTERED DESIGN



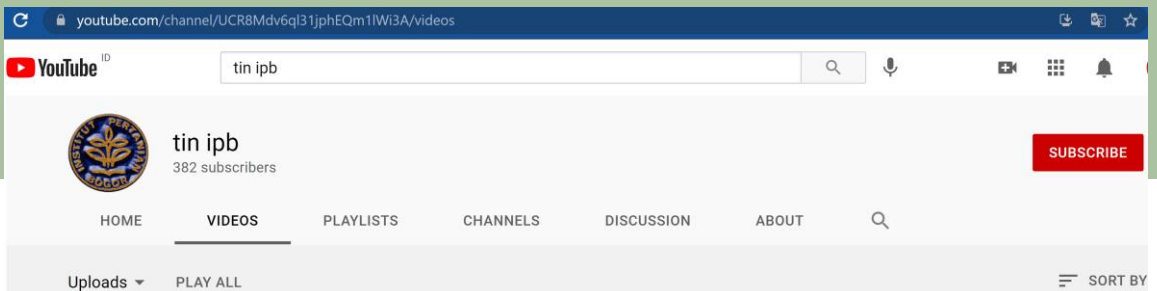
DESIGN KIT

H C D

HUMAN CENTERED DESIGN

TOOLKIT
2ND EDITION

LOGISTICS: Videos



Tedjo Pramono

Basic Knowledge on Coffee:

https://drive.google.com/drive/u/1/folders/1ua4Mkycyr4yL_Rqrw-EFyeueisdvebVX

Practices Of Sustainability From A Rural Based Coffee Business :

https://drive.google.com/drive/u/1/folders/1ua4Mkycyr4yL_Rqrw-EFyeueisdvebVX

Dr. Sunate Subkar

Coffee Processing in Thailand

https://drive.google.com/drive/u/1/folders/1ua4Mkycyr4yL_Rqrw-EFyeueisdvebVX

Asif Aunillah, MSi

Cocoa Post Harvest Technology:

https://drive.google.com/drive/u/1/folders/1LpCu5IMHP_wQxan2520fvscYql_5c5Vx

Dr. I Wayan Alit Artha Wiguna

Sustainable Agroindustry In Rural Area : Case: Chocolate Industry of Cau Chocolates Bali, Through the Implementation of the NEO-GT Concept :

https://drive.google.com/drive/u/1/folders/1LpCu5IMHP_wQxan2520fvscYql_5c5Vx

Virtual Trip

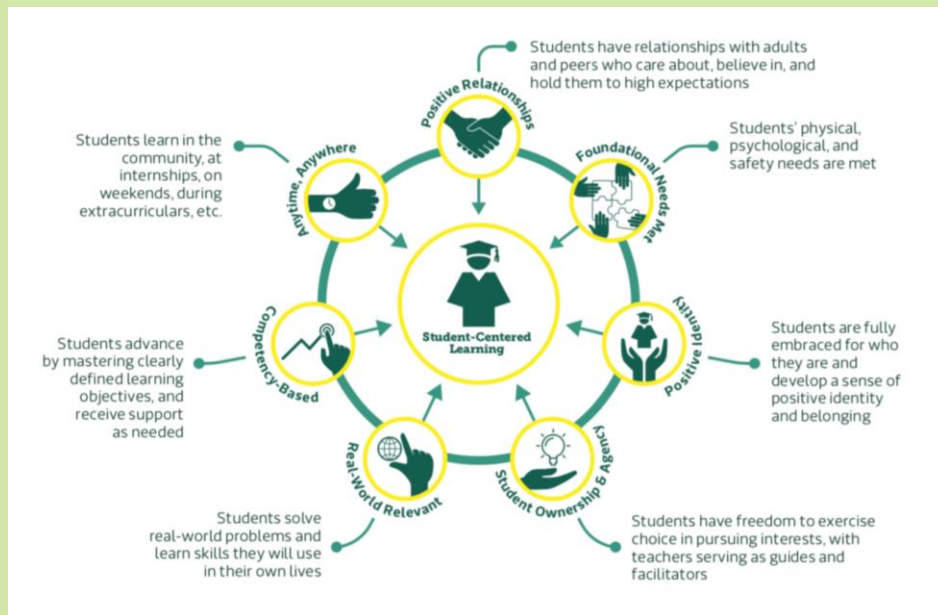
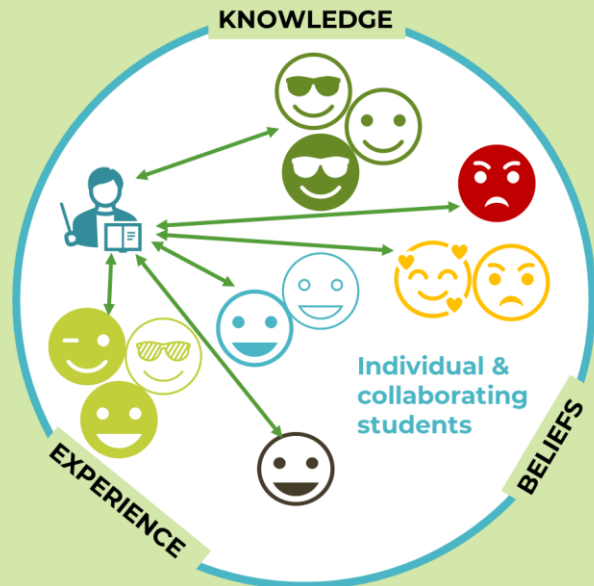
Field Trip Trip to Kampung Kopi Cibulao :

<https://www.youtube.com/watch?v=ZG9S0JH-9yw&t=767s>

DELIVERY METHODS

1

STUDENT CENTERED LEARNING

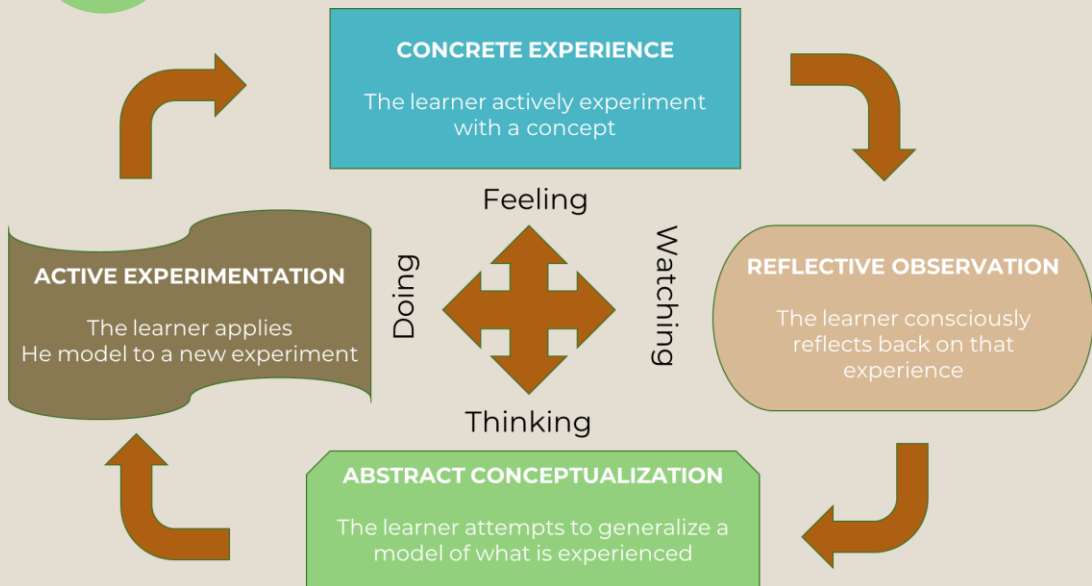


Taken from Shafer, D.E. (2001) How to create a student-centered classroom
<https://gwangjunewsgic.com/teaching/kotesol/creating-a-student-centered-classroom/>

DELIVERY METHODS

2

EXPERIENTIAL LEARNING

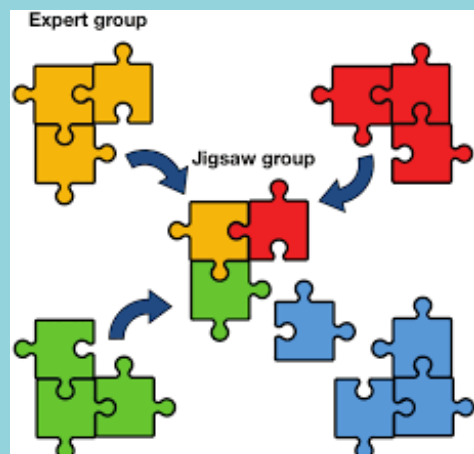


Konak, A., Clark, T. K., & Nasereddin, M. (2014). Using Kolb's Experiential Learning Cycle to improve student learning in virtual computer laboratories. *Computers & Education*, 72, 11-22.

3

JIGSAW METHOD

Sanchez-Muñoz, R., Carrió, M., Rodríguez, G., Pérez, N., & Moyano, E. (2020). A hybrid strategy to develop real-life competences combining flipped classroom, jigsaw method and project-based learning. *Journal of Biological Education*, 1-12.



STRUCTURE OF IN-CLASS MEETINGS

Independent Pre-work:
Reading materials, watching videos




In-class activities

Highlighting concepts
from resource persons

Group works

Feedbacks from
resource persons



Assignment:
Implementing concepts in Mini Project



Presentation and Competition

REGISTRATION



<https://ipb.link/applicationform-sctin2023>

<https://forms.gle/wqNZfAq1R33RXbM36>*

*Registration will be closed on June 20th 2023



IPB University
— Bogor Indonesia —

Departemen
Teknologi Industri Pertanian



Summer Course on Sustainable Agroindustry

Adding values to local commodities in Rural Areas

3rd - 30th July 2023

This course will provide students with knowledge and encourage abilities to co-create sustainable agroindustrial solutions with local producers and communities in the rural area. Building upon local experience and knowledge, students will use lessons from process engineering, industrial systems engineering, environmental engineering and management to design products, processes and services that add value to the local commodities.



IPB300 : Summer Course

4 Weeks Full Program
(3.0 credit course program)
2 wk online + 2 wk offline

International : **USD 1,000**
Students
Local : **IDR 6,000,000**
Student

2 Weeks Half Program
(Certificate program)
2 wk online

International : **USD 100**
Students
Local : **IDR 300,000**
Student

APPLY NOW!

Scholarship Available



<https://ipb.link/applicationform-sctin2023>

<https://forms.gle/wqNZfAq1R33RXbM36>*

*Registration will be closed on June 30th, 2023

Please direct all payment to:
Account name : Rektor IPB C/Q KS-FATETA
Account no. 3889948
Bank : BNI
Branch : Bogor Swiftcode : BNINIDJA

In Collaboration with



COLORADO SCHOOL OF MINES
EARTH • ENERGY • ENVIRONMENT



VILLANOVA UNIVERSITY
College of Engineering



Contact Person

Ms. Endang Warsiki

Phone: +62 81219550337

E-mail: endangwarsiki@apps.ipb.ac.id



SUSTAINABLE AGROINDUSTRY IN RURAL AREAS

S U M M E R C O U R S E

Contact
Endang Warsiki
Email : endangwarsiki@apps.ipb.ac.id



IPB University
— Bogor Indonesia —

Departemen
Teknologi Industri Pertanian



**HOCHSCHULE
RHEIN-WAAL**
Rhine-Waal University
of Applied Sciences



UPM
UNIVERSITI PUTRA MALAYSIA



Balittri
SCIENCE . INNOVATION . NETWORKS

