

Sustainability Report

Fakultas Teknologi Pertanian



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SDGs in Research & Innovation



Intelligence Spatial Decision Support Systems (ISDSS) for Food Crop Logistics and Supply Chain

30 September – 20 Desember 2021

Deskripsi Smart Agrologistik adalah sebuah aplikasi logistic terintegrasi berbasis komoditas agro-industri kentang yang mempertemukan petani, kelompok tani, pengepul, pedagang besar, industry dan konsumen dengan platform sistem operasi Android.

Keunggulan Menggunakan *QR Codes, Smart Navigasi dan Route Guidance Systems*

Manfaat Penelitian ini telah berhasil meningkatkan fitur SMART Agrologistik sebagai sistem pendukung keputusan spasial cerdas untuk pengembangan logistik agroindustri kentang berkelanjutan berbasis Agroindustri 4.0. Pada tahap awal, penelitian ini telah berhasil melakukan update data spasial, re-klasifikasi sustainable class interval, perbaikan interface software dan upgrade sensor serta uji coba prototipe di pelaku.

Secara keseluruhan aktivitas penelitian pada tahun ini dirancang prototipe *packaging*, yaitu sortasi dan pengemasan cerdas, diharapkan mampu menekan *losses* sehingga dapat meningkatkan produktivitas yang akhirnya akan meningkatkan pendapatan petani.

Kendala dan Tantangan Mindset petani bahwa aplikasi Android itu sulit. Perlu penguatan peran kelembagaan agroindustri

Intelligence Spatial Decision Support Systems (ISDSS) for Food Crop Logistics and Supply Chain

September 30th – December 20th, 2021

Description *Smart Agrologistics is an integrated logistics application based on potato agro-industry commodities that brings together farmers, farmer groups, collectors, wholesalers, industry and consumers with the Android operating system platform.*

Advantages *Using QR Codes, Smart Navigation and Route Guidance Systems*

Benefits *This research has succeeded in improving the SMART Agrologistics feature as a smart spatial decision support system for the development of sustainable potato agroindustry logistics based on Agroindustry 4.0. In the early stages, this research has succeeded in updating spatial data, re-classifying continuous class intervals, improving software interfaces and upgrading sensors as well as testing prototypes in actors.*

Overall, this year's research activity designed packaging prototypes, namely sorting and smart packaging, which is expected to be able to reduce losses so as to increase productivity which will ultimately increase farmers' income.

Constraints and Challenges *Farmer's mindset that Android applications are difficult. Need to strengthen the role of agro-industry institutions*



SUSTAINABLE AGROINDUSTRY IN RURAL AREAS “Adding Values to Local Commodities in CHOCOTEA”

Departemen Teknologi Industri Pertanian, Fakultas Teknologi Pertanian Tahun 2021

Date : 4 – 31 Juli 2021

SDGs Learning Program

Description

This program 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

Partners



Outcome

- Outcome 1:** 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
- Outcome 2:** Able to design a sustainable rural Agroindustrial system/component, process and product by applying engineering concepts to solve engineering problems through experiential learning
- Outcome 3:** Able to recognize the needs and have the ability to be involved in lifelong learning



For more information please contact us

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SDGs in Curriculum Development & Learning Program



Tempe: Warisan Budaya Indonesia untuk Dunia

21 April 2021

“Departemen Ilmu dan Teknologi Pangan Mempromosikan dan Berbagi Tentang Tempe melalui Summer Course Program 2021” Departemen Ilmu dan Teknologi Pangan, Fakultas Teknik dan Teknologi Pertanian (FATETA), IPB University bekerjasama dengan South-East Asia Food and Agricultural Science and Technology (SEAFAST) Center, Lembaga Penelitian dan Pengabdian kepada Masyarakat (LPPM), IPB University menyelenggarakan program summer course edisi ke-4 dengan tema “Tempe: Warisan Budaya Indonesia untuk Dunia”. Kegiatan summer course dilaksanakan secara online pada tanggal 26 Juli – 6 Agustus 2021 dan sesuai dengan kebijakan IPB University akibat pandemi COVID-19 yang sedang berlangsung.

Sebanyak 117 peserta dari berbagai lembaga dan negara yaitu IPB University, Universitas Katolik Widya Mandala Surabaya, Universitas Terbuka, International University Liaison Indonesia, Universitas Siliwangi (Indonesia); Universiti Malaysia Terengganu dan Universiti Teknologi Mara (Malaysia); Institut Teknologi Raja Mongkut Ladkrabang (Thailand); Universitas Teknologi Cina Selatan (Cina); dan Universitas Wageningen (Belanda). Program summer course terdiri dari kegiatan seperti kuliah, kegiatan simulasi/virtual, dan review.

Tempe: Indonesian Cultural Heritage for The World

April 21st, 2021

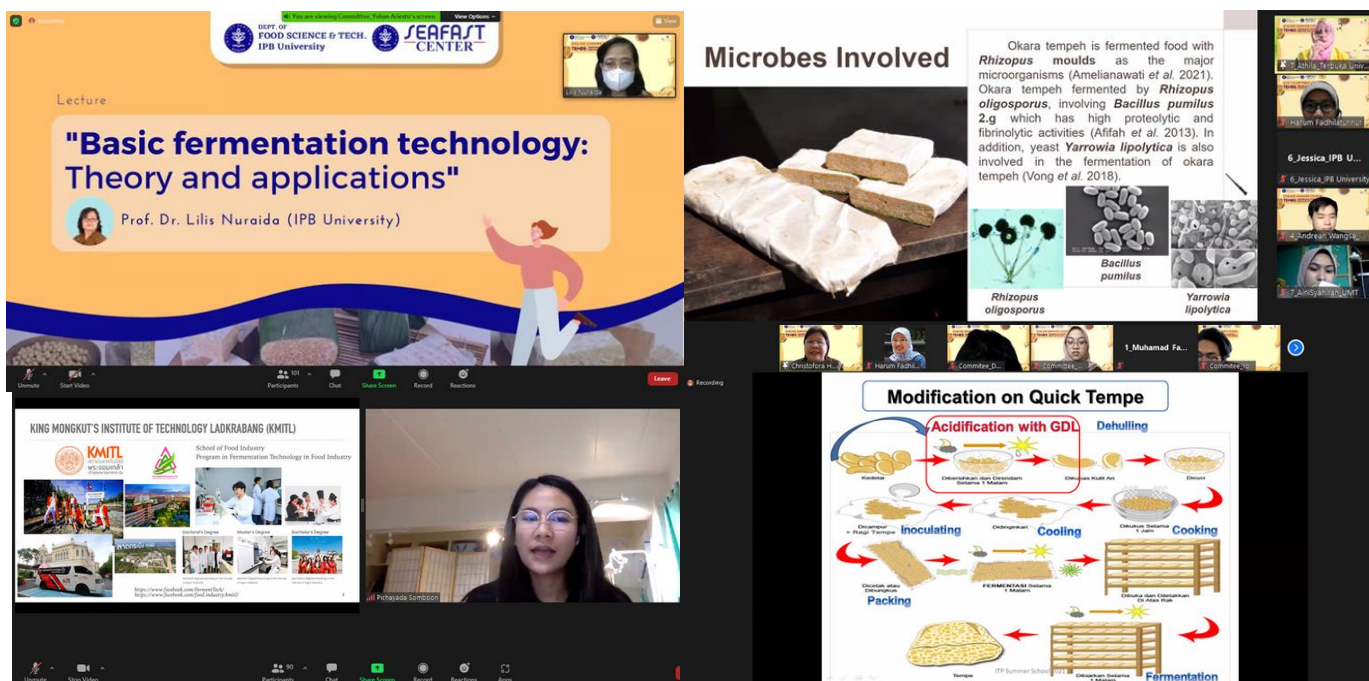
“Department of Food Science and Technology Promotes and Shares About Tempe through Summer Course Program 2021” Department of Food Science and Technology, Faculty of Agricultural Engineering and Technology (FATETA), IPB University in collaboration with South-East Asia Food and Agricultural Science and Technology (SEAFAST) Center, Institute for Research and Community Service (LPPM), IPB University held the 4th edition of summer course program on “Tempe: Indonesian Cultural Heritage for the World”. The summer course activities were held fully online on July 26 - August 6, 2021 and in accordance with the policy of IPB University due to the ongoing COVID-19 pandemic.

A total of 117 participants from various institutes and countries namely IPB University, Universitas Katolik Widya Mandala Surabaya, Universitas Terbuka, International University Liaison Indonesia, Universitas Siliwangi (Indonesia); Universiti Malaysia Terengganu and Universiti Teknologi Mara (Malaysia); King Mongkut’s Institute of Technology Ladkrabang (Thailand); South China University of Technology (China); and Wageningen University (Netherlands). The summer course program consisted of activities such as lectures, simulation/virtual activities, and review.

Summer Course Program “Tempe: Warisan Budaya Indonesia untuk Dunia” berfokus pada empat tujuan prioritas SDGs yaitu *zero hunger, good health and well-being, quality education, dan partnerships for the goals*. Berbagai riset dan publikasi ilmiah menyatakan kandungan nutrisi dari tempe salah satunya menjadi sumber protein dengan harga yang terjangkau sehingga diharapkan dapat mengurangi angka *stunting* khususnya di Indonesia. Berkaitan dengan tujuan *zero hunger*, tempe yang telah dianggap sebagai *superfood* dengan nutrisinya telah terbukti memberikan dampak baik bagi kesehatan tubuh. Hal tersebut sesuai dengan tujuan menjadikan umat manusia dengan *good health and well-being*. Selain itu, program *summer course* memungkinkan terjadinya pertukaran pengetahuan tidak hanya antar universitas termasuk antar individu sehingga dapat meningkatkan kualitas dari pendidikan dengan mengadaptasi setiap pembelajaran yang diperoleh terkait dengan tujuan *quality education dan partnerships for the Goals*.

The Summer Course Program “Tempe: Indonesian Cultural Heritage for the World” focuses on four priority SDGs goals, namely *zero hunger, good health and well-being, quality education, and partnerships for the goals*. Various researches and scientific publications state that the nutritional content of tempeh is one of the sources of protein at an affordable price so that it is expected to reduce *stunting* rates, especially in Indonesia. In connection with the goal of *zero hunger*, tempeh which has been considered a *superfood* with its nutrients has been proven to have a good impact on health. This is in accordance with the aim of making human beings with *good health and well-being*. In addition, the summer course program allows the exchange of knowledge not only between universities but also between individuals so as to improve the quality of education by adapting every lesson learned related to the goals of *quality education and partnerships for the Goals*.

URL:
[Department of Food Science and Technology will be conducting Summer Course Program 2021 about TEMPE - Department of Food Science and Technology \(ipb.ac.id/\)](https://www.ipb.ac.id/)





Praktikum Terpadu Pengolahan Pangan dengan Pendekatan Project-Based Learning (PjBL)

Praktikum Terpadu Pengolahan Pangan/PTPP (ITP401) merupakan mata kuliah yang menggabungkan secara komprehensif kerja praktek di bidang manajemen industri, pengolahan pangan, analisis pangan, sistem jaminan mutu pangan, sistem keamanan pangan, hingga aspek bisnis dan pemasaran pangan. Khusus pada tahun 2021, implementasi mata kuliah PTPP menitikberatkan pada aplikasi kewirausahaan dengan mendorong mahasiswa untuk melakukan pengembangan produk pangan baru yang berbasis inovasi dan kreativitas yang feasible, mengasah kemampuan pengorganisasian, manajemen pengembangan produk pangan baru, kerjasama dalam tim, kemampuan komunikasi, hingga berlatih kewirausahaan.

Perkuliahan MK PTPP dilakukan dengan pendekatan aplikasi kewirausahaan yang menerapkan prinsip-prinsip Project Based Learning (PjBL) dan student center learning (SCL). Berbagai tantangan seperti membangun komunikasi tim, distribusi produk, memperpanjang umur simpan, berinteraksi secara langsung dengan pelanggan di kanal online marketplace, hingga mengejar target permintaan konsumen tentunya memberikan pengalaman yang sangat berharga bagi mahasiswa. Sebanyak 3 kelompok bahkan terus melanjutkan wirausaha melalui skema program nurturing kewirausahaan yang juga merupakan bagian dari kegiatan dalam Program Kompetisi Kampus Merdeka Program Studi Teknologi Pangan – IPB. Secara keseluruhan, pelaksanaan mata kuliah ini menghasilkan beberapa luaran, yaitu: katalog yang berisi 32 produk inovasi dan 3 kelompok wirausaha (The Bamboo, Biogurt, dan Hi-Moon).

Food Processing Integrated Laboratory with Project-Based Learning (PjBL) Approach

Food Processing Integrated Laboratory (ITP401) is a course that comprehensively combines practical work in the fields of industrial management, food processing, food analysis, food quality assurance systems, food safety systems, includes aspects of business and food marketing. Specifically in 2021, the implementation of the ITP401 course focused on the application of entrepreneurship by encouraging students to develop new food products based on feasible innovation and creativity, hone organizational skills, management of new food product development, teamwork, communication skills, and practice entrepreneurship.

The ITP401 lecture was conducted with an entrepreneurial application approach that applied the principles of Project Based Learning (PjBL) and student center learning (SCL). Various challenges such as team communication building, product distribution, extending shelf life, interacting directly with customers in online market channels, also pursuing target consumers, certainly provided a very valuable experience for students. A total of 3 groups even continued their entrepreneurship through the entrepreneurial nurturing program scheme which was also part of the activities in the "Kompetisi Kampus Merdeka" Program of the Food Technology Study Program - IPB. Overall, the implementation of this course produced several outcomes, namely: a catalog containing 32 innovation products and 3 entrepreneurial groups (The Bamboo, Biogurt, and Hi-Moon).

Mata Kuliah Praktikum Terpadu Pengolahan Pangan dengan Pendekatan Project-Based Learning (PjBL) di Departemen ITP memberikan kontribusi dalam tercapainya tujuan SDGs diantaranya 2 (zero hunger), 3 (good health and well-being), 4 (quality education), dan 9 (industry, innovation, and infrastructure). Perlawanan terhadap kelaparan dan malnutrisi telah dilakukan salah satunya dengan pemberdayaan masyarakat, melalui mata kuliah ini akan terbentuk jiwa kewirausahaan bagi para mahasiswa yang akan membuka lapangan pekerjaan. Beberapa produk makanan dan minuman yang dihasilkan berpotensi menjadi pangan fungsional dan diharapkan meningkatkan kesehatan masyarakat. Mata kuliah ini telah mencakup mulai dari pembekalan ilmu hingga praktek di lapangan sehingga mahasiswa siap mengaplikasikannya di masa yang akan datang. Inovasi-inovasi yang bermunculan pada saat pembuatan produk pangan dapat menjadi prasarana dalam mencapai tujuan SDGs.

ITP401 at the ITP Department contributed to the achievement of the SDGs goals mainly 2 (zero hunger), 3 (good health and well-being), 4 (quality education), and 9 (industry, innovation, and infrastructure). The fight against hunger issues and malnutrition has been carried out, one of them is community empowerment, through this course an entrepreneurial spirit will be formed for students who will create jobs. Some of the food and beverage products produced have the potential to become functional food and are expected to improve public health. This course covers everything from providing knowledge to practice in the field so that students are ready to apply it in the future. The innovations that emerge during the food products manufacturing can be used as mediator in achieving the goals of the SDGs.

URL:
<https://youtu.be/RJzr2f2h96o>





1st SUMMER COURSE Departemen Teknik Pertanian dan Biosistem 2021: *Green Technology for Sustainable Agriculture*

28 November 2021

Deskripsi Kuliah online dengan pemaparan dan diskusi interaktif dengan topik utama teknologi produksi pertanian berkelanjutan dalam sistem produksi pertanian tropika yang difokuskan pada 3 (tiga) komoditas tropis unggulan Indonesia, yaitu kelapa sawit, kopi dan kakao. Pemaparan materi disampaikan oleh dosen atau koordinator kerjasama luar negeri berbagai universitas di Jepang, ASEAN dan Eropa, Balai Penelitian Tanaman Industri dan Penyegar serta Dosen Departemen TMB IPB University.

Waktu dan Tempat Pelaksanaan Senin, 16 Agustus – Kamis, 26 Agustus 2021, Online melalui aplikasi Zoom Meeting dan Hybrid

Manfaat Kegiatan ini memberikan pertukaran informasi, pemahaman dan gambaran mengenai teknologi produksi pertanian berkelanjutan komoditas tropis unggulan Indonesia (kelapa sawit, kopi dan kakao) antar institusi Pendidikan dari berbagai negara dalam 1 forum pembelajaran.

Luaran/Capaian Penyebarluasan informasi mengenai teknologi produksi pertanian komoditas tropis unggulan Indonesia (kelapa sawit, kopi dan kakao) kepada individu diluar Indonesia.

Capaian SDGs Mencapai pengetahuan mengenai teknologi produksi pertanian komoditas tropis unggulan Indonesia (kelapa sawit, kopi dan kakao)

1st SUMMER COURSE Department of Agricultural Engineering and Biosystem 2021: *Green Technology for Sustainable Agriculture*

November 28th, 2021

Description Online lecture with interactive presentations and discussions on the main topic of sustainable agricultural production technology in tropical agricultural production systems focused on 3 (three) leading Indonesian tropical commodities, namely oil palm, coffee and cocoa. The presentation of the material was delivered by lecturers or coordinators of overseas cooperation of various universities in Japan, ASEAN and Europe, the Research Institute for Industrial and Refreshing Plants and Lecturers of the TMB Department of IPB University

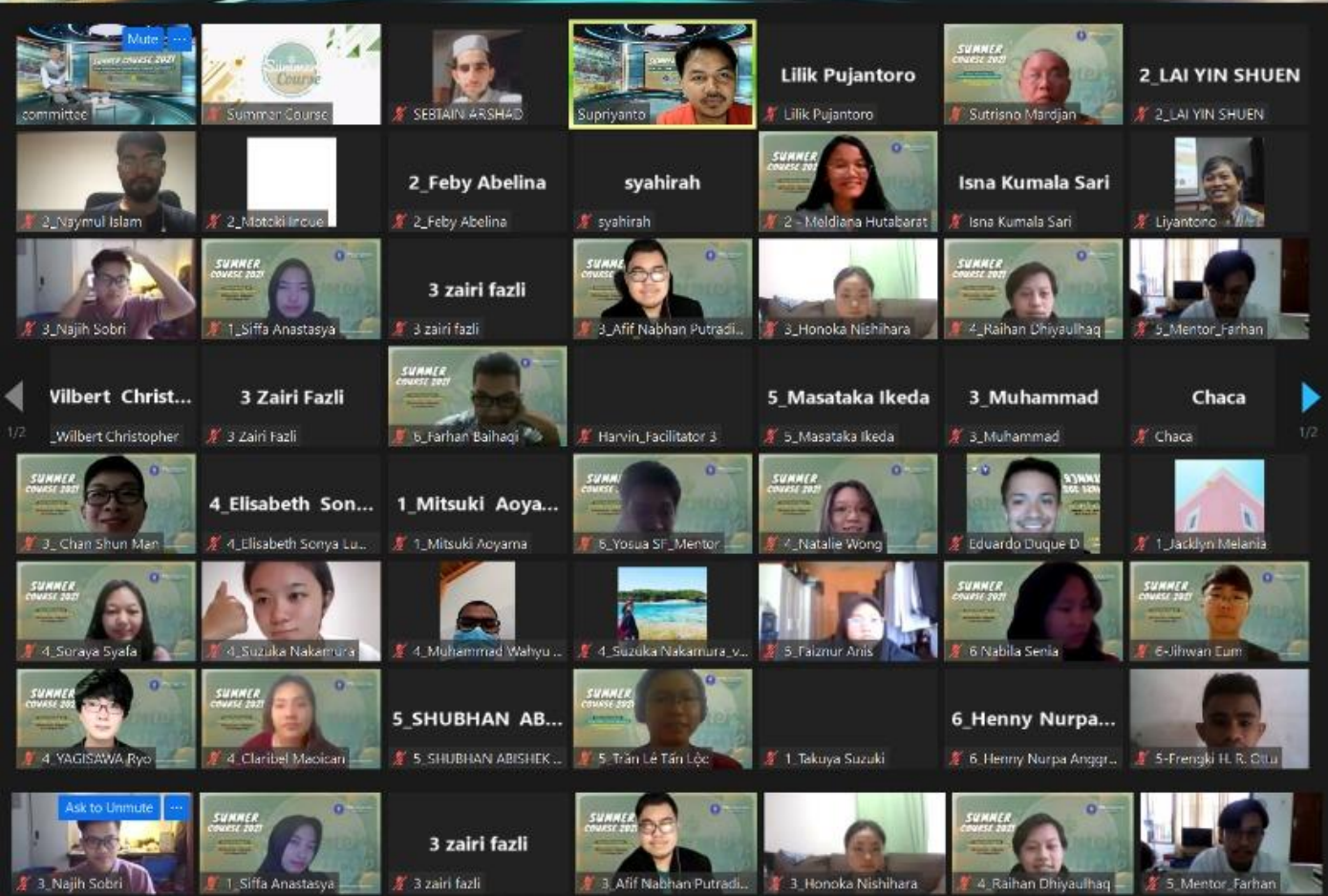
Time and Place of Implementation Monday, August 16 – Thursday, August 26 2021, Online via Zoom Meeting and Hybrid

Benefits This activity provides an exchange of information, understanding and description of sustainable agricultural production technology for Indonesia's leading tropical commodities (palm oil, coffee and cocoa) between educational institutions from various countries in one learning forum.

Outcomes Dissemination of information on agricultural production technology for Indonesia's leading tropical commodities (palm oil, coffee and cocoa) to individuals outside Indonesia.

Achievement of SDGs Knowledge attainment of agricultural production technology for Indonesia's leading tropical commodities (palm oil, coffee and cocoa)

URL: [Summer Course Program 2021 - YouTube](#)



Pelaksanaan Summer Course 2021: Green Technology for Sustainable Tropical Agriculture



2nd IPB-FFTC International Online Workshop and Seminar

*Adaptation and Adoption of Agricultural Sensors, Information Communication Technologies, and Smart Supply Chains to Support Smallholder Farmer
Organized by IPB University and Food and Fertilizer Technology Center (FFTC)*

28 November 2021

Deskripsi Lokakarya dan Seminar Online Internasional IPB-FFTC tentang Adaptasi dan Adopsi Sensor Pertanian, Teknologi Komunikasi Informasi, dan Rantai Pasokan Cerdas untuk Mendukung Petani Kecil.

Waktu dan Tempat Pelaksanaan Rabu, 22 September – Kamis, 23 September 2021, Online melalui aplikasi Webex

Manfaat Kegiatan ini memberikan pengetahuan dan pengalaman tentang adaptasi dan adopsi sensor pertanian dan teknologi TIK lainnya di petani kecil. Memperkuat kerjasama internasional di antara para pemangku kepentingan untuk adopsi yang lebih luas dari teknologi dan manajemen rantai pasokan yang cerdas.

Luaran/Capaian Meningkatkan tingkat kesadaran masyarakat tentang penggunaan teknologi untuk mengamankan pertanian berkelanjutan.

Capaian SGDs Adaptasi dan Adopsi Sensor Pertanian, Teknologi Komunikasi Informasi, dan Rantai Pasokan Cerdas untuk Mendukung Petani Kecil

2nd IPB-FFTC International Online Workshop and Seminar

*Adaptation and Adoption of Agricultural Sensors, Information Communication Technologies, and Smart Supply Chains to Support Smallholder Farmer
Organized by IPB University and Food and Fertilizer Technology Center (FFTC)*

November 28th, 2021

Description of IPB-FFTC International Online Workshop and Seminar on Adaptation and Adoption of Agricultural Sensors, Information Communication Technology, and Smart Supply Chains to Support Small Farmers.

Time and Place of Implementation Wednesday, 22 September – Thursday, 23 September 2021, Online via the Webex application

Benefits This activity provides knowledge and experience on adaptation and adoption of agricultural sensors and other ICT technologies in smallholders. Strengthen international cooperation among stakeholders for wider adoption of technology and smart supply chain management.

Outcomes Increase the level of public awareness about the use of technology to secure sustainable agriculture.

SGD Achievements Adaptation and Adoption of Agricultural Sensors, Information Communication Technology, and Smart Supply Chains to Support Smallholders

URL: <https://ipbfftcc-seminar2021.id/>



2021 IPB International Online Seminar

On Adaptation and Adoption of Agricultural Sensors, Information Communication Technologies, and Smart Supply Chains to Support Smallholder Farmers

23 SEPTEMBER 2021



Pre-registration for attendance is required. For more information of the workshop and registration, please visit: <https://ipbfile-seminar2021.id> or scan the QR code. Thank you

08.00-17.00 (GMT+7) ■
 VIDEO CONFERENCE ■
 Cisco webex event hosted by IPB University, Bogor - Indonesia ■



Dr. Samsuzana Abd Aziz
 Department of Biological and Agricultural Engineering, Universiti Putra Malaysia
 Artificial Intelligence and Machine Learning for Intelligent IoT in Agriculture



Dr. Karlisa Priandana
 Department of Computer Science, IPB University - Indonesia
 Modern Agriculture: AI, IoT, Robotics and Cloud Computing



Dr. Aris Prabhawa
 Lead Solution Architect AWS Public Sector
 Smart Agriculture with AWS

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2021 IPB-FFTC International Online Workshop

Adaptation and Adoption of Agricultural Sensors, Information Communication Technologies, and Smart Supply Chains to Support Smallholder Farmers

22 SEPTEMBER 2021



Pre-registration for attendance is required. For more information of the workshop and registration, please visit: <https://ipbfile-workshop2021.id> or scan the QR code. Thank you

09.00-17.00 (GMT+7) / 10.00-18.00 (GMT+8) ■
 VIDEO CONFERENCE ■
 Cisco webex event hosted by IPB University, Bogor - Indonesia ■

Keynote and Invited Speakers

 Ari Setiawan Widiana Special Rector of IPB University	 Su-San Chang Widiana Special Director of FFTC	 Takashi OKAYASU Widiana Special IPB University - Japan Plant Phenotyping Technology to Enhance Smart Farming	 Ernan Rustiadi IPB University Indonesia Implementing Agro-Marketing 4.0 through Agribusiness Linking Science and Policy	 Kensuke Kawamura Japan International Research Center for Agricultural Sciences Weed mapping with low-cost, small UAV for smallholder farming
 Y. Aris Purwanto IPB University Indonesia Portable near-infrared spectrometer for point-of-need quality assessment of agro-food products	 SHIKANAI Takeshi University of the Ryukyus - Japan Improvement of suboptimal agriculture of sugarcane cultivation using ICT in Okinawa, Japan	 Teng, Hsueh-Kai General Manager, IRI SPTVGS FOOD CORP., Taiwan Application of Information Communication Technology (ICT) and Automation in Jis da Chicken Breeding	 Siti Noor Alish Baharom Malaysian Agricultural Research and Development Institute (MARDI) Application of advanced agricultural sensors and ICT in smart farming towards the Agriculture 4.0	 Roger Luyun Jr. University of the Philippines Los Baños Future-proofing Philippine Agriculture with SARAI Technologies
 Mingche Wu Taiwan Livestock Research Institute Utilization of digital livestock farming for young farmers in Taiwan	 JIUN-HAO Wang National Taiwan University Human Resource Development for Smart Agriculture in Taiwan	 Bayu Dwi Apri Nugroho Universitas Gadjah Mada - Indonesia Best Practice of Ag-Tech Start-up for Farmers' Welfare: Ag-Tech and Agribusiness Integration to Support Agricultural Ecosystem in Indonesia	 Ketut Gede Mudiarta Indonesian Agency for Agricultural Research and Development (IAARD) Management of Agricultural Technology Transfer in IAARD Indonesia	 Kim Hyunjong National Institute of Agricultural Sciences - Korea Smart Farm R&D status and future direction in Korea

■ Session 1 / Advances of agricultural sensors and Other ICTs in smart farming
 ■ Session 2 / Successful cases of smart farming systems and supply chains (crops, livestock, aquaculture)
 ■ Session 3 / Support policies and public-private partnership

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3rd The 4th International Conference on Agricultural Engineering for Sustainable Agriculture Production (AESAP) 2021.

The Role of Agricultural and Biosystem Engineering to Provide and Manage Food, Land, Water, and Bioenergy to Achieve Sustainable Development Goals (SDGs) Toward Industry 4.0

28 November 2021

Deskripsi Konferensi Internasional ke-4 tentang Teknik Pertanian untuk Produksi Pertanian Berkelanjutan. Konferensi ini akan mencakup topik rekayasa proses dan biosistem pertanian, rekayasa sistem permesinan, rekayasa energi terbarukan, teknologi informasi dan elektronik pertanian, dan pertanian berkelanjutan.

Waktu dan Tempat Pelaksanaan Senin, 11 Oktober – Selasa, 12 Oktober 2021, Online melalui aplikasi Zoom Meeting

Manfaat Kegiatan ini membahas dan bertukar informasi yang relevan terkait dengan penerapan teknik pertanian dalam mengatasi tantangan luar biasa terkait dengan pembangunan berkelanjutan dalam penggunaan lahan dan lingkungan, rantai makanan, pertanian dan kemudahan, energi, dan proses bioproduksi.

Luaran/Capaian Hasil kegiatan the 4th AESAP 2021 adalah makalah yang akan dipublikasikan dalam prosiding internasional yang terindeks SCOPUS: IOP Conference Series: Earth and Environmental Science.

Capaian SGDs:

Mencapai kondisi produksi pertanian yang berkelanjutan.

3rd The 4th International Conference on Agricultural Engineering for Sustainable Agriculture Production (AESAP) 2021.

The Role of Agricultural and Biosystem Engineering to Provide and Manage Food, Land, Water, and Bioenergy to Achieve Sustainable Development Goals (SDGs) Toward Industry 4.0

November 28th, 2021

Description of the 4th International Conference on Agricultural Engineering for Sustainable Agricultural Production. The conference will cover topics of agricultural biosystems and process engineering, mechanical systems engineering, renewable energy engineering, agricultural information technology and electronics, and sustainable agriculture.

Time and Place of Implementation Monday, 11 October – Tuesday, 12 October 2021, Online via the Zoom Meeting application

Benefits This activity discusses and exchanges relevant information related to the application of agricultural techniques in overcoming extraordinary challenges related to sustainable development in land use and the environment, food chains, agriculture and convenience, energy, and bioproduction processes.

Outcomes The results of the 4th AESAP 2021 are papers that will be published in international proceedings indexed by SCOPUS: IOP Conference Series: Earth and Environmental Science.

SGD Achievements Achieving conditions of sustainable agricultural production.

URL:
<https://www.youtube.com/watch?v=Co1UclBheDQ>





Summer Course 2021: “The development of sustainable green infrastructure for building structures, environmental sanitation, and agriculture, especially for developing countries”

19-28 Juli 2021

Dengan Program *Summer Course* 2021 ini, diharapkan dapat menghasilkan masukan dan solusi bagi pengembangan infrastruktur hijau berkelanjutan untuk struktur bangunan, sanitasi lingkungan, dan pertanian, terutama untuk negara berkembang. Kegiatan ini memberikan informasi terkini dalam perkembangan pendekatan, metode dan teknologi infrastruktur berkelanjutan dengan tetap menjaga kearifan lokal sebagai identitas. Topik ini akan menjadi topik yang menarik untuk dikaji dalam menghadapi berbagai tantangan yang dihadapi dalam permasalahan lingkungan, khususnya perubahan iklim dunia saat ini. Dari kegiatan ini dapat terjalin kerjasama akademik yang dapat meningkatkan jaringan hubungan internasional yang lebih terstruktur hingga pengakuan kredit pembelajaran.

Kegiatan ini dapat memberikan informasi perkembangan pendekatan, metode dan teknologi terkini untuk infrastruktur berkelanjutan dengan tetap menjaga kearifan lokal sebagai identitas.

Dari kegiatan ini dapat terjalin kerjasama akademik dalam meningkatkan jaringan hubungan internasional yang lebih terstruktur hingga pengakuan kredit pembelajaran.

Summer Course 2021: “The development of sustainable green infrastructure for building structures, environmental sanitation, and agriculture, especially for developing countries”

July 19th - 28th, 2021

With the 2021 Summer Course Program, student exchange activities are expected to generate inputs and solutions for the development of sustainable green infrastructure for building structures, environmental sanitation, and agriculture, especially for developing countries. This activity can provide information on the development of the latest approaches, methods and technology for sustainable infrastructure while maintaining local wisdom as an identity. This topic will be an interesting topic to study in facing the various challenges facing environmental problems, especially the current world climate change. From this activity, academic cooperation can be established in enhancing a more structured network of international relations to the recognition of learning credits.

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URL:

<https://sil.ipb.ac.id/summer-course-2021/>



Summer Course 2021

Green Infrastructure Adapting to Climate Change

Department of Civil and Environmental Engineering (SIL)
IPB University, Indonesia






19th – 28th July 2021


Zoom

INTRODUCTION

With the 2021 Summer Course Program, student exchange activities are expected to generate inputs and solutions for the development of sustainable green infrastructure for building structures, environmental sanitation, and agriculture, especially for developing countries. This activity can provide information on the development of the latest approaches, methods and technology for sustainable infrastructure while maintaining local wisdom as an identity. This topic will be an interesting topic to study in facing the various challenges facing environmental problems, especially the current world climate change. From this activity, academic cooperation can be established in enhancing a more structured network of international relations to the recognition of learning credits.

Global Lecturers:

 Prof. Budiman Minasny School of Life and Environmental Sciences, The University of Sydney, Australia	 Prof. Asep Sapel Dept. of Civil and Environmental Engineering, IPB University, Indonesia	 Pavel Leonardo Lopez Gonzalez, PhD Dept. of Materials Engineering, KU Leuven, Belgium	 Dr. Ram L. Ray College of Agriculture and Human Sciences, Prairie View A&M University, USA
 Prof. Ariel Sabdo Yuwono Dept. of Civil and Environmental Engineering, IPB University, Indonesia	 Dr. Mark Sibag Dept. of Civil and Sanitary Engineering, Batangas State University, Philippines	 Dr. Ria Marni Tuboon Australian Centre for Research on Separation Science, University of Tasmania, Australia	 Prof. Tasuku Kato Department of International Environmental and Agricultural Science, Tokyo University of Agriculture and Technology, Japan
 Prof. Budi Indra Setiawan Dept. of Civil and Environmental Engineering, IPB University, Indonesia	 Dr.-Ing Monserrat Miramontes Municipality of Fünfenfeldbruck, Transport Planning and Mobility Management, Germany	 Dr. Yanuer J. Purwanto Dept. of Civil and Environmental Engineering, IPB University, Indonesia	 Dr. Anindriya Nastiti Faculty of Civil and Environmental Engineering, Institut Teknologi Bandung

Registration Link: ipb.link/silsummercourse2021

Registration Period: 3rd May – 16th July 2021

Contact Person: +62 813 8168 0473 (Dr.Eng. Allen Kurniawan) | scsil@apps.ipb.ac.id

Requirements:

- Filling out the registration form
- A valid passport (for International Applicants) *
- A recent photograph *
- A recent curriculum vitae (CV) *
- Recommendation letter from home university *

Benefits:

- Transferable course credit (2 credits)
- Expert lecturers and class discussions
- Cultural exchange opportunity
- Certificate

* upload via registration form

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2nd International Conference on Innovation in Technology and Management for Sustainable Agroindustry (ITaMSA) 2021

25 – 26 Oktober 2021

2nd International Conference on Innovation in Technology and Management for Sustainable Agroindustry (2nd ITaMSA 2021) merupakan platform bagi para akademisi, pelaku usaha, pengambil kebijakan, maupun praktisi lainnya yang bergerak dan memiliki visi untuk mengembangkan agroindustri berkelanjutan. 2nd ITaMSA 2021 diselenggarakan oleh Departemen Teknologi Industri Pertanian, Fateta IPB bekerja sama dengan Asosiasi Agroindustri Indonesia (AGRIN).

Kegiatan ini diikuti oleh 341 peserta dan pembicara berasal dari berbagai negeri antara lain Australia, Amerika Serikat, Prancis dan Jepang, baik dari kalangan akademisi, pemerintah maupun bisnis dan komunitas. Kegiatan ini dibuka oleh Rektor IPB Dr. Arif Satria, SP., MS dan selaku Menteri Pariwisata dan Ekonomi Kreatif Republik Indonesia Dr. H. Sandiaga Salahuddin Uno, B.B.A., M.B.A.. Sebagai *keynote speaker*.

Pada 2nd ITaMSA 2021, terdapat 60 judul paper yang dipresentasikan dan siap untuk diterbitkan di IOP Conference Series Earth and Environmental Science (prosiding internasional terindeks SCOPUS). Paper yang dipresentasikan terbagi dalam 7 (tujuh) sesi parallel antara lain produk agroindustri berkelanjutan yang inovatif, teknologi hijau, termasuk didalamnya teknologi (bio)proses dan pengemasan dan penyimpanan serta model bisnis agroindustri yang inovatif dan berkelanjutan.

2nd International Conference on Innovation in Technology and Management for Sustainable Agroindustry (ITaMSA) 2021

October 25th – 26th, 2021

The 2nd International Conference on Innovation in Technology and Management for Sustainable Agroindustry (2nd ITaMSA 2021) is a platform for academics, business actors, policy makers, and other practitioners who are engaged and have a vision to develop sustainable agroindustry. The 2nd ITaMSA 2021 is organized by the Department of Agricultural Industrial Technology, Fateta IPB in collaboration with the Indonesian Agroindustrial Association (AGRIN).

This activity was attended by 341 participants and speakers from various countries including Australia, the United States, France and Japan, both from academia, government and business and communities. This activity was opened by the Rector of IPB, Dr. Arif Satria, SP., MS and as Minister of Tourism and Creative Economy of the Republic of Indonesia Dr. H. Sandiaga Salahuddin Uno, B.B.A., M.B.A.. As keynote speaker.

At the 2nd ITaMSA 2021, there were 60 papers presented and ready to be published at the IOP Conference Series Earth and Environmental Science (international proceedings indexed by SCOPUS). The presented paper is divided into 7 (seven) parallel sessions including innovative sustainable agro-industry products, green technology, including (bio)process technology and packaging and storage as well as innovative and sustainable agro-industrial business models.

Kendala pelaksanaan kegiatan antara lain adanya perbedaan waktu, pelaksanaan daring sehingga kurang adanya interaksi antar peserta hingga banyaknya *international conference* lain dalam waktu yang bersamaan.

Diharapkan acara ini menghasilkan kontribusi nyata bagi pengembangan agroindustri Indonesia, terutama melalui terobosan teknologi di bidang teknologi proses, bioteknologi dan ICT dan mempercepat pencapaian Tujuan Pembangunan yang Berkelanjutan (*Sustainable Development Goals*, SDGs) dan transformasi pada rantai nilai agroindustri berkelanjutan dari hulu sampai hilir.

Obstacles in carrying out activities include time differences, online implementation so that there is less interaction between participants and the number of other international conferences at the same time.

It is hoped that this event will produce a real contribution to the development of Indonesian agro-industry, especially through technological breakthroughs in the fields of process technology, biotechnology and ICT and accelerate the achievement of the Sustainable Development Goals (SDGs) and transformation of the sustainable agro-industry value chain from upstream to downstream.

2nd INTERNATIONAL CONFERENCE ON INNOVATION IN TECHNOLOGY AND MANAGEMENT FOR SUSTAINABLE AGROINDUSTRY

2021 2nd ITaMSA
2nd International Conference on Innovation in Technology and Management for Sustainable Agroindustry

Timeline:

- March 2021: Call for abstract
- March - Oct 2021: Registration for participant
- July 2021: Deadline for abstracts submission (4 July 2021)
- August 2021: Announcement of accepted abstracts (2 August 2021)
- September 2021: Deadline for submission of full papers (6 September 2021)
- October 2021: Deadline regular registration (17 October 2021)

Event Dates: 25 & 26 - October - 2021
08.00 AM (GMT +7) Virtual Conference

Keynote Speakers:

- Prof. Dr. Arif Satria, SP, MSI
- Dr. H. Sandiaga Uno, B.B.A., M.B.A.

Speakers Day 1:

- Dr. Guillermo Baigorria
- Prof. Randy Stringer
- Dr. Yuki Saito
- Prof. Vincent Radin
- Prof. Dr. Anas Miftah Fauzi
- Dr. Justinus Satrio

Speakers Day 2:

- Dr. (HC). Nurhayati Subakat
- Prof. Dr. Khaswar Syamsu
- Ir. Adhi S. Lukman
- Sugianto Tandio, MSc

Topics:

- Technology Innovation
 - Innovative Sustainable Agroindustry Product
 - Green Technologies Including Process and Bioprocess, Packaging and Warehousing Business Technologies
- Management and Process Innovation
 - Innovative and Sustainable Business Models in Agroindustry

Organized By:

- ASOSIASI AGROINDUSTRI INDONESIA
- Department of Agroindustrial Technology IPB University
- VILLANOVA UNIVERSITY
- THE UNIVERSITY OF TOKYO

Publication (Selected Papers):
IOP Conference Series Earth and Environmental Sciences (Scopus Indexed Proceeding)
JTIP Jurnal Teknologi Industri Pertanian (KEMENRISTEKDIKTI Accredited National Journal)

Participation fee: FREE

Publication fee \$100 (Rp 1,500,000)

Call for Abstract Submission: ipb.link/abstract-submission

Full Paper Submission: ipb.link/paper-submission

Contact:
+62 251 8621 974
+62 811 1187 812

Contact: itamsa@apps.ipb.ac.id | <https://itamsa.ipb.ac.id> | [ZOOM](#) Virtual Conference



Sustainable Agroindustry in Rural Areas: Adding Values to Local Commodities in CHOCOTEA

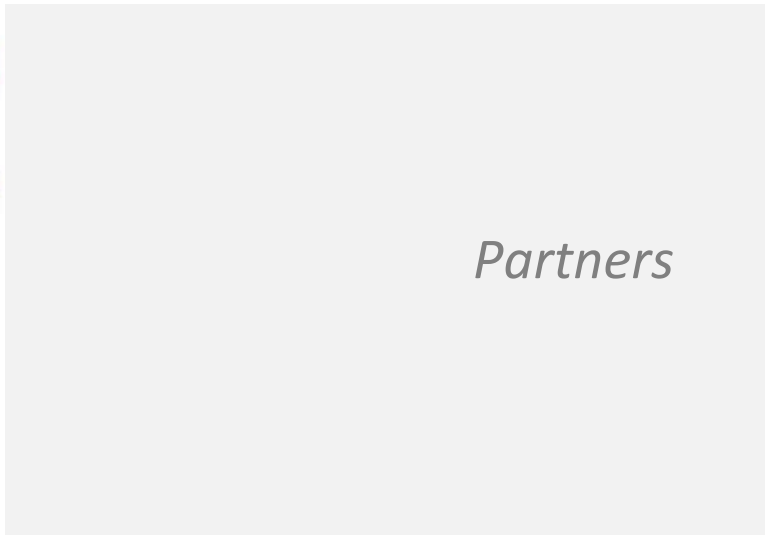
4 – 31 Juli 2021

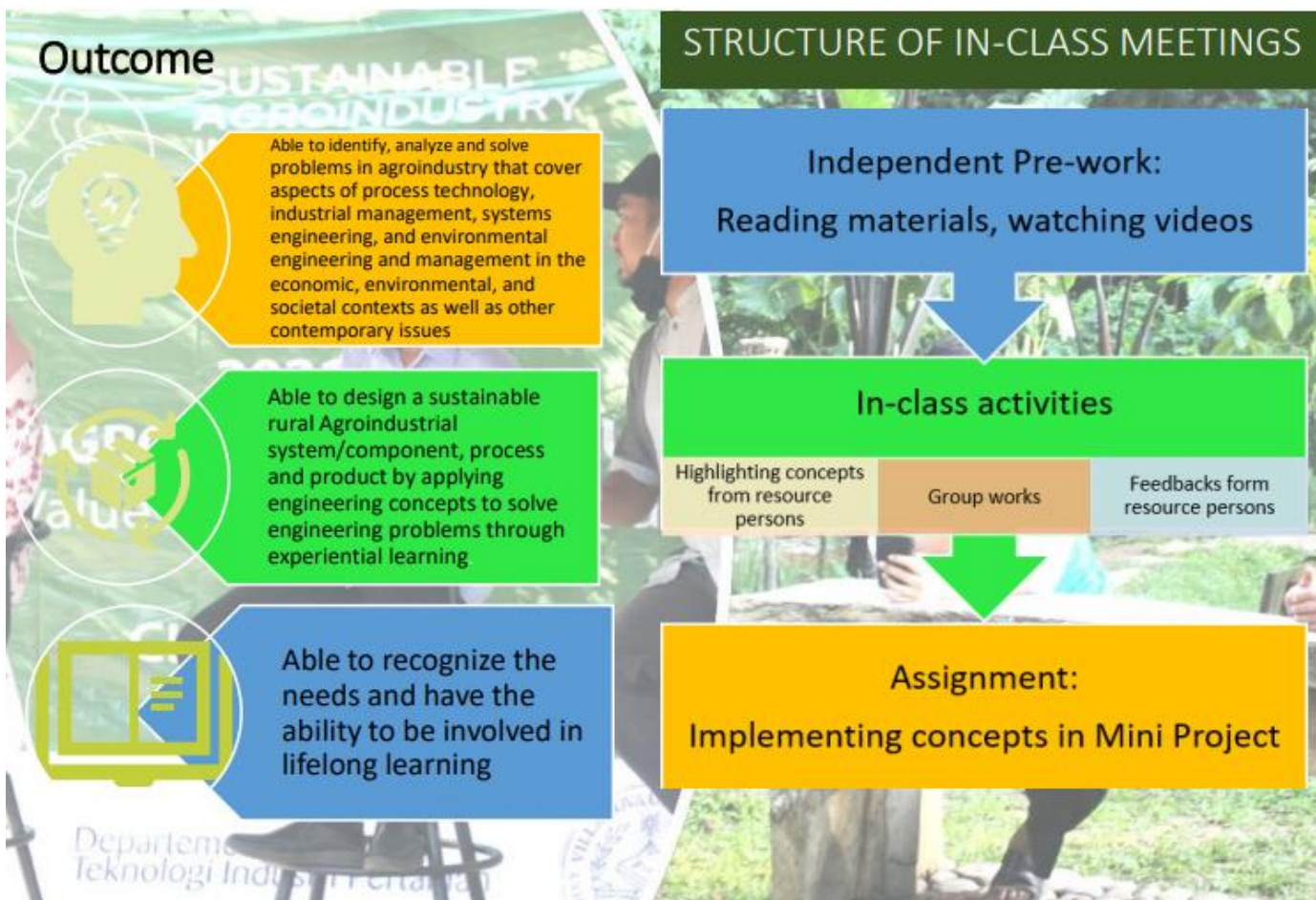
Program ini dirancang untuk membekali mahasiswa dengan pengetahuan dan kemampuan merancang komponen atau sistem agroindustri pedesaan berkelanjutan yang dibangun di atas integrasi antara rekayasa proses, rekayasa sistem industri, dan rekayasa dan manajemen lingkungan. Mahasiswa mempelajari tentang pengembangan produk dan proses agroindustri yang memberi nilai tambah pada komoditas lokal, sistem dan manajemen yang mendukung agroindustri pedesaan, dan pengembangan agroindustri yang lebih bersih. Mahasiswa juga akan dibekali dengan *design thinking* serta penerapan pengembangan agroindustri.

2nd International Conference on Innovation in Technology and Management for Sustainable Agroindustry (ITaMSA) 2021

July 4th – 31st, 2021

This program 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.







SDGs in Student Activities



Tim Army IPB University berhasil memperoleh penghargaan di kompetisi BIMWIKAWARDS 2021

25 Maret 2021

BIMWIKAWARDS adalah ajang kompetisi tingkat nasional untuk mahasiswa dan pelajar SMK di bidang BIM (*Building Information Modelling*) yang diselenggarakan oleh departemen BIM dan Riset PT. Wijaya Karya (Persero) Tbk. Melalui kompetisi ini diharapkan dapat meningkatkan percepatan implementasi BIM dan mengembangkan potensi *engineers* muda prestatif dari kalangan akademisi di seluruh Indonesia. BIMWIKAWARDS 2021 merupakan kompetisi gelaran ke-2 yang telah berhasil dilaksanakan oleh PT. Wijaya Karya. Terdapat 6 kategori yang dilombakan dalam ajang BIMWIKAWARDS 2021, yaitu *Building Modelling*, *Building Analysis*, *Road Modelling*, *Bridge Modelling*, dan *Survey Fotogrametri*, serta 1 kategori untuk pelajar SMK yaitu *Smart Building Conceptual Design*. Pada tahun ini peserta dari BIMWIKAWARDS 2021 berjumlah 156 Tim yang berasal dari 71 institusi pendidikan dari 18 provinsi di Indonesia.

Melalui kompetisi ini diharapkan dapat meningkatkan percepatan implementasi BIM dan mengembangkan potensi *engineers* muda prestatif dari kalangan akademisi di seluruh Indonesia.

The Army IPB University team wins BIMWIKAWARDS 2021

March 25th, 2021

BIMWIKAWARDS is a national level competition for students and vocational high school students in the field of BIM (Building Information Modeling) organized by the BIM and Research department of PT. Wijaya Karya (Persero) Tbk. Through this competition, it is hoped that it will accelerate the implementation of BIM and develop the potential of young, accomplished engineers from academics throughout Indonesia. BIMWIKAWARDS 2021 is the 2nd competition event that has been successfully implemented by PT. Wijaya Karya. There are 6 categories contested in the 2021 BIMWIKAWARDS, namely Building Modeling, Building Analysis, Road Modeling, Bridge Modeling, and Photogrammetry Surveys, as well as 1 category for vocational students, namely Smart Building Conceptual Design. This year the participants from the 2021 BIMWIKAWARDS totaled 156 teams from 71 educational institutions from 18 provinces in Indonesia.

Through this competition, it is hoped that it will accelerate the implementation of BIM and develop the potential of young, accomplished engineers from academics throughout Indonesia.

In this competition, there are several problems, such as the lack of processing time due to the same time as lectures, and limited communication only through online, but these obstacles can be overcome with good teamwork. The Army team also received an award as the Favorite Champion based on voting and likes on BIMWIKAWARDS's social media.

Dalam kompetisi ini memiliki beberapa permasalahan, seperti kurangnya waktu pengerjaan dikarenakan bersamaan dengan waktu kuliah, serta komunikasi yang dilakukan terbatas hanya melalui online, namun kendala tersebut dapat diatasi dengan kerja sama tim yang baik. Tim Army juga memperoleh penghargaan sebagai Juara Favorit berdasarkan voting serta like pada media sosial BIMWIKa.

Kedepannya berharap banyak mahasiswa lain terutama mahasiswa Teknik Sipil dan Lingkungan, IPB University untuk dapat terus mengembangkan potensinya melalui kompetisi yang kompetitif dan sportif terutama di bidang Teknik Sipil dan Lingkungan. Dengan mengikuti kompetisi yang relevan dengan jurusan, tentu akan memperoleh banyak ilmu serta pengalaman baru yang nantinya dapat diimplementasikan di dunia kerja.

In this competition, there are several problems, such as the lack of processing time due to the same time as lectures, and limited communication only through online, but these obstacles can be overcome with good teamwork. The Army team also received an award as the Favorite Champion based on voting and likes on BIMWIKa's social media.

URL:

<https://sil.ipb.ac.id/tim-army-ipb-university-berhasil-memperoleh-penghargaan-di-kompetisi-bimwika-awards-2021/>





SDGs in Community Engagement



Sahabat Masyarakat dan Kesatria Pangan (KAPANGAN)

2 Juni 2021

Sahabat Masyarakat dan Kesatria Pangan (KAPANGAN) merupakan kegiatan pengabdian masyarakat di bidang pangan yang diselenggarakan oleh himpunan mahasiswa Ilmu dan Teknologi Pangan (HIMITEPA). Kegiatan KAPANGAN terdiri atas 3 cabang kegiatan, yaitu Sahabat Pedagang, Sahabat Sekolah, dan Sahabat Desa.

Sahabat Pedagang merupakan program penyuluhan dan pembinaan terhadap para pedagang. Program ini dilaksanakan bertahap pada 27 Februari 2021, 20 Maret 2021, dan 29 Mei 2021. Setiap tahunnya, kegiatan Sahabat Pedagang selalu bekerja sama dengan Pedagang di Kantin SAPTA, FATETA IPB dalam bentuk inspeksi dagangan dan penyuluhan tentang pangan. Namun, karena kondisi pandemi pada tahun 2021, Sahabat Pedagang diadaptasi menjadi kegiatan penyuluhan online yang membahas tentang sistem penjualan offline menuju daring, optimalisasi aplikasi penjualan berbasis online, dan pemilihan kemasan yang sesuai untuk produknya. Melalui kegiatan ini, para pedagang dapat beradaptasi terhadap perubahan sistem offline menuju daring, penjualan para pedagang dapat dioptimalkan melalui aplikasi berbasis online seperti grabfood atau gofood, serta para pedagang memiliki wawasan mengenai kemasan yang sesuai untuk produknya.

Sahabat Masyarakat dan Kesatria Pangan (KAPANGAN)

June 2nd, 2021

Sahabat Masyarakat and Kesatria Pangan (KAPANGAN) are community service activities in the food sector which organized by Department of Food Science and Technology student association (HIMITEPA). KAPANGAN's activities consist of 3 types of activity, namely "Sahabat Pedagang", "Sahabat Sekolah", and "Sahabat Desa".

"Sahabat Pedagang" is an outreach and coaching program for merchants. This program was carried out gradually on February 27, 2021, March 20, 2021, and May 29, 2021. Annually, its activities always cooperatively conducted with Traders at the SAPTA Canteen, FATETA IPB in the form of inspections and counseling about their products. However, due to the pandemic conditions in 2021, "Sahabat Pedagang" was adapted into an online outreach activity that discussed the offline selling system going online, optimizing online-based sales applications, and selecting appropriate packaging for their products. Through this activity, traders could adapt to changes in the offline system to online, sales of traders can be optimized through online-based applications such as grabfood or gofood, and traders have insight into the appropriate packaging for their products.

URL:
<https://ipb.ac.id/news/index/2021/06/himpunan-mahasiswa-ilmu-dan-teknologi-pangan-ipb-university-fasilitasi-pedagang-kampus-melalui-sahabat-pedagang/39e9dbd3bffca87e51e49f6ac42c40fb>



Sahabat Sekolah merupakan kegiatan penyuluhan mengenai pangan kepada siswa sekolah dasar di sekolah secara daring. Kegiatan ini dilaksanakan pada 3, 10, dan 17 Juli 2021. Pada tahun ini berkolaborasi dengan Manakkara Greeners Community dengan penyuluhan hybrid di SD Negeri Ponaga, Mamuju, Sulawesi Barat. Penyuluhan berisi tentang makanan, jajanan, dan isu pangan yang umum terjadi di kalangan anak-anak. Selain itu, melalui program ini, diharapkan dapat mewujudkan sarana dan prasarana pembelajaran yang layak bagi siswa SD Negeri Ponaga melalui penyaluran donasi. Setelah pelaksanaan, siswa memiliki semangat dan inisiatif yang tinggi untuk belajar terutama di masa transisi pandemi ini, siswa juga bisa saling berdiskusi dan memahami materi dengan mudah melalui sahabat tutor, terbentuknya pemahaman yang baik terhadap pangan yang bergizi, beragam, dan seimbang, serta perilaku hidup bersih dan sehat pada siswa sekolah dasar. Penyaluran Donasi juga dapat membantu para siswa dan sekolah untuk memiliki sarana dan prasarana pembelajaran yang layak.

"Sahabat Sekolah" is an online outreach activity about food to elementary school students. This activity held on 3, 10, and 17 July 2021. This year, it was a collaboration with Manakkara Greeners Community with hybrid counseling at SD Negeri Ponaga, Mamuju, West Sulawesi. It contained food, snacks, and food issues that are common among children. In addition, through this program, it is expected to be able to realize proper learning facilities and infrastructure through the distribution of donations. After the activities, students have high enthusiasm and initiative to learn, especially during this pandemic transition period, students can also discuss and understand each other easily through "sahabat tutor", forming a good understanding of nutritious, diverse, and balanced foods, as well as clean and healthy living behavior in elementary school students. Distribution of donations can also help students and schools to have proper learning facilities and infrastructure.

URL:

<https://ipb.ac.id/news/index/2021/07/sahabat-sekolah-upaya-mahasiswa-ipb-university-mengabdikan-bagi-masyarakat/a80f8fd6e99b2d239984c25c9a9728a4>

Sahabat Desa merupakan kegiatan turun lapang ke desa yang dilakukan secara kontinu dalam rangka memberikan pelatihan dan penyuluhan mengenai proses pengolahan pangan yang dapat meningkatkan nilai tambah hasil pertanian. Kegiatan dilakukan di berbagai desa pada tanggal 18, 25, dan 31 Juli 2021. Tahun 2021, bekerja sama dengan beberapa Tim KKN IPB yang juga sedang melakukan pengabdian di desa, diantaranya Desa Margaluyu, Desa Pejagatan, Desa Cijujung, Desa Ciburayut, dan Kavling Kinayungan. Selain itu, kegiatan penyuluhan juga berkolaborasi dengan Premysis Consulting untuk menyampaikan materi bertema Pengolahan Pangan yang Baik di Dapur Kita secara Hybrid. Melalui kegiatan ini, warga desa mendapatkan pengetahuan mengenai tahapan pengolahan makanan yang baik agar tidak terjadi hal yang tidak diinginkan di rumah, penerapan kebersihan pengolahan makanan yang lebih baik, pemilihan bahan pangan dengan kualitas baik, kondisi penyimpanan bahan pangan mentah dan matang agar tidak mudah busuk, serta persiapan bahan pangan sebelum diolah dengan baik dan penyimpanan makanan yang sudah matang

Kegiatan HIMITEPA berkaitan dengan tujuan SDGs SDGs goals 3 (Good Health and Well-Being), 4 (Quality Education), 6 (Clean water and Sanitation), 8 (Decent Work and Economic Growth), 11 (Sustainable cities and communities), and 12 (Responsible consumption and Production) karena mereka melakukan beberapa pelatihan kepada masyarakat seperti adaptasi new normal, konsumsi makanan yang seimbang, perilaku hidup bersih, dll.

"Sahabat Desa" is a field activity to villages that is carried out continuously in order to provide training and counseling regarding food processes that can increase the added value of agricultural products. The activities were carried out in several villages on July 18, 25, and 31, 2021. In 2021, in collaboration with several KKN IPB Teams who were also doing community dedication, including Desa Margaluyu, Desa Pejagatan, Desa Cijujung, Desa Ciburayut, and Kavling Kinayungan. In addition, they also collaborated with Premysis Consulting to deliver materials with the theme of Good Food Processing in Our Kitchens in a Hybrid way. Through this activity, the community gained knowledge about the stages of good food processing so that unwanted things won't happen at home, the application of better food processing hygiene, selection of good quality of food ingredients, storage conditions for raw and cooked food so it won't easily spoiled, as well as proper food preparation before being processed and proper storage of cooked food.

HIMITEPA activities relate with the SDGs goals 3 (Good Health and Well-Being), 4 (Quality Education), 6 (Clean water and Sanitation), 8 (Decent Work and Economic Growth), 11 (Sustainable cities and communities), and 12 (Responsible consumption and Production) because they conducted several training to the communities related with that goals such as new-normal adaptation, balance food consumption, clean living behavior, etc.

URL:

<https://ipb.ac.id/news/index/2021/08/sahabat-desa-himitepa-ipb-university-gandeng-mahasiswa-kkn-t-sosialisasikan-pengolahan-pangan-yang-baik/180d2b3c1d8f91a794e56f8aef5c60a2>





Analisis, Training, dan Konsultasi

2 Juni 2021

Pengabdian kepada masyarakat adalah salah satu aktivitas yang dilakukan oleh Departemen ITP. Kegiatan pengabdian ini diwujudkan secara terintegrasi dalam satu wadah yaitu Laboratorium Departemen ITP (LDTP) yang telah terakreditasi sejak tahun 2006. Kegiatan utama yang menjadi lingkup dari LDTP ini adalah kegiatan layanan analisis, training dan konsultasi.

Semua kegiatan LDTP berorientasi pada fasilitasi industri untuk menghasilkan produk pangan yang bermutu dan aman sesuai persyaratan regulasi di Indonesia. Salah satu unggulan dari kegiatan pengabdian ini adalah kegiatan Training Proses Termal yang memungkinkan mitra untuk dapat memahami evaluasi kecukupan proses termal sesuai persyaratan memenuhi Peraturan Badan Pengawas Obat dan Makanan (BPOM) RI Nomor 27 tahun 2021. Pada tahun 2021 terlaksana dua in house training (PT. Garuda Food dan PT. Titra Fresindo Jaya Mayora Group serta satu regular training untuk peserta dari berbagai industri Pangan.

Kegiatan pengabdian yang diselenggarakan oleh Departemen ITP ini tentunya dapat berkontribusi pada pencapaian SDGS 2 (zero hunger), 3 (good health and well-being), 4 (quality education), dan 17 (partnerships for the goals) karena memfasilitasi mitra untuk menghasilkan produk pangan yang aman dan bermutu. Partnership antara akademisi dan mitra industri tentunya akan mempercepat pencapaian SDGs melalui program-program yang dijalankan secara nyata seperti halnya kegiatan layanan analisis, training dan konsultasi ini.

Analysis, Training, and Consulting

June 2nd, 2021

Community Engagement is one of the activities carried out by the Department of Food Science and Technology (DFST). This activity is realized in an integrated manner in a shade, namely the Laboratory of the ITP Department (LDTP) which has been accredited since 2006. The main activities are analysis, training and consulting service activities.

All LDTP activities are oriented towards industrial facilitation to produce good quality and safe food products according to regulatory requirements in Indonesia. One of the highlights is the Thermal Process Training activity which allows partners to understand the evaluation of the adequacy of the thermal process in accordance with the requirements to meet the National Agency of Drug and Food Control Republic of Indonesia regulation "Peraturan Badan Pengawas Obat dan Makanan (BPOM) RI Nomor 27 tahun 2021". In 2021, two in-house trainings were held (PT. Garuda Food and PT. Titra Fresindo Jaya Mayora Group) as well as one regular training for participants from various food industries.

This service activity organized by the ITP Department can certainly contribute to the achievement of SDGS 2 (zero hunger), 3 (good health and well-being), 4 (quality education), and 17 (partnerships for the goals) because it facilitates partners to produce good quality and safe food products. The partnership between academia and industry partners will certainly accelerate the achievement of the SDGs through programs that are implemented in real terms such as this analysis, training and consulting service activity.

URL:

[PT. Tirta Fresindo Jaya \(Mayora Group\) Gaet Departemen ITP untuk selenggarakan In House Training Proses Termal Sistem Aseptik dan Retort - Department of Food Science and Technology \(ipb.ac.id\)](https://www.ipb.ac.id)



Kegiatan analisis, *training*, dan konsultasi yang diselenggarakan oleh Departemen Ilmu dan Teknologi Pangan (ITP).



Mahasiswa IPB Ciptakan Kompor Berbahan Bakar Minyak Jelantah Untuk Membantu Pengusaha Kerupuk Kulit

25 Oktober 2021

Deskripsi Mahasiswa Departemen Teknik Mesin dan Biosistem IPB University membuat sebuah inovasi yaitu kompor berbahan bakar crude biodiesel dengan memanfaatkan limbah minyak jelantah.

Waktu dan Tempat Pelaksanaan Bogor, Oktober 2021

Manfaat Kegiatan ini bertujuan untuk membuat sumber energi alternatif lain dan mendesain sebuah teknologi yaitu High Pressure Stove dengan berbahan bakar crude biodiesel dari minyak jelantah. Kemudian Membantu mitra menyelesaikan permasalahan dengan meminimalisir pembuangan minyak jelantah dan tentu dengan adanya iptek ini dapat membantu menghemat pemakaian gas serta meningkatkan keuntungan pada mitra.

Luaran/Capaian Peningkatan kualitas kerja di pabrik kerupuk daerah Bogor dengan penghematana sebesar Rp 87.772 dibandingkan LPG dan pengoprasian alat tergabung menjadi satu sehingga dapat mempermudah pemilik usaha dalam pengolahan limbah menjadi bahan bakar baru yang dapat langsung digunakan dalam waktu yang cepat.

Capaian SGDs Pengolahan Limbah rumah tangga, Ketahanan Pangan, Pertanian Berkelanjutan serta Inovasi yang Tangguh

IPB Students Create Stoves Fueled by Waste Cooking Oil to Help Skin Cracker Entrepreneurs

October 25th, 2021

Description Student of the Department of Mechanical Engineering and Biosystems IPB University made an innovation, namely a stove fueled with crude biodiesel by utilizing waste cooking oil.

Time and Place of Implementation Bogor, October 2021

Benefits This activity aims to create other alternative energy sources and design a technology, namely High-Pressure Stove with crude biodiesel fuel from used cooking oil. Then help partners solve problems by minimizing the waste of used cooking oil and of course with this science and technology it can help save gas use and increase profits for partners.

Outcomes Improving the quality of work at the Bogor cracker factory with savings of Rp. 87,772 compared to LPG and the operation of tools combined into one so that it can make it easier for business owners to process waste into new fuel that can be used immediately in a short time.

SGD Achievements Household Waste Treatment, Food Security, Sustainable Agriculture and Resilient Innovation

URL:
<https://tmb.ipb.ac.id/id/index.php/2021/10/25/mahasiswa-ipb-ciptakan-kompor-berbahan-bakar-minyak-jelantah-untuk-membantu-pengusaha-kerupuk-kuli/>





SDGs in Partnerships



Penjajagan Kerjasama Research & Innovation untuk Program Kedaireka

23 Februari 2021

Deskripsi Kegiatan dilakukan mengunjungi Hejo Farm berlokasi di Cicurug, Kabupaten Sukabumi. Hejo Farm adalah merupakan peternakan ayam petelur. Sistem peternakan ayam petelur di Hejo Farm ada yang model open farm dan closed farm. Jumlah ayam petelur yang terdapat di hejo farm sekitar 1 juta ekor.

Dari 1 juta ekor ayam petelur tersebut terdapat sekitar 20% ayam yang tidak produktif. Ayam yang tidak produktif ini dikelompokkan menjadi ayam afkiran. Rata-rata umur ayam tersebut adalah 2 tahun dengan rata-rata berat adalah 2 kg/ekor. Ayam afkiran ini dijual dengan harga Rp. 12.000/kg. Jauh lebih murah dibandingkan ayam pedaging yang harganya mencapai Rp. 28.000/kg. Ayam afkiran ini tidak disukai oleh masyarakat karena tekstur dagingnya yang keras. Namun berpotensi untuk dimanfaatkan sebagai bahan baku tepung ayam dan kolagen ayam

Manfaat kegiatan Meningkatkan nilai tambah ayam petelur afkiran, meningkatkan kerjasama perguruan tinggi dan industry, aplikasi ilmu dan pengetahuan untuk masarakat

Luaran/Capaian Hejo Farm akan menjadi pemasok ayan petelur afkiran untuk program Kedaireka ke PT. Sukaraja Pangan Utama dengan topik Scale up Produksi Tepung dan Kolagen Ayam Afkiran dan Aplikasinya pada Bumbu Kaldu Ayam

Research & Innovation Cooperation for the Kedaireka Program

February 23rd, 2021

Description The activity was carried out visiting Hejo Farm located in Cicurug, Sukabumi Regency. Hejo Farm is a laying hens farm. The laying hens farming system at Hejo Farm has an open farm and a closed farm model. The number of laying hens found at Hejo Farm is around 1 million heads.

Of the 1 million laying hens, there are about 20% of chickens that are not productive. These unproductive chickens are grouped into rejected chickens. The average age of the chickens is 2 years with an average weight of 2 kg/head.

This rejected chicken is sold at a price of Rp. 12,000/kg. Much cheaper than broilers which cost up to Rp. 28.000/kg. This rejected chicken is not liked by the public because of its tough meat texture. However, it has the potential to be used as raw material for chicken flour and chicken collagen

Benefits Increasing added value of discarded laying hens, increasing collaboration between universities and industry, application of science and knowledge to the community

Outcomes Hejo Farm will be a supplier of discarded laying hens for the Kedaireka program to PT. Sukaraja Pangan Utama with the topic of Scale up Production of Flour and Collagen Chicken Afkiran and its Application to Chicken Broth Seasoning





Penjajagan Kerjasama *Research & Innovation* untuk Program Kedaireka

18 Februari 2021

Deskripsi Ampas tebu merupakan limbah padat yang dihasilkan dari proses penggilingan batang tebu (*Saccharum officinarum* L) pada industri gula. Namun, pemanfaatan sisa limbah ampas tebu belum dilakukan secara optimal sehingga dapat menimbulkan permasalahan dan pencemaran lingkungan. Oleh karena itu, diperlukan metode pengolahan dan penciptaan produk yang tepat untuk mengoptimalkan potensi dari limbah ampas tebu yang dihasilkan. Salah satu produk alternatif yang dapat dihasilkan dari ampas tebu adalah Biochar, yang dapat dimanfaatkan sebagai *slow-release fertilizer* sebagai upaya pengembangan pupuk presisi untuk pertanian berkelanjutan (*sustainable agriculture*). Pada penelitian ini, dilakukan pengembangan *slow-release fertilizer* dari komposit Alginat dan Biochar Ampas Tebu.

Manfaat Sebagai tempat belajar untuk mengaplikasikan hasil penelitian di petani hidroponik

Kendala Mitra yang mempunyai budidaya hidroponik di Lampung sangat terbatas, akhirnya dicari mitra di Bogor untuk uji coba hasil penelitian

Luaran/Capaian Proposal Penelitian dengan judul *Slow-Release Fertilizer Menggunakan Komposit Alginat/Biochar Ampas Tebu yang diajukan ke Hibah ITERA*

Research & Innovation Cooperation for the Kedaireka Program

February 18th, 2021

Description Bagasse is a solid waste produced from the sugarcane (*Saccharum officinarum* L) milling process in the sugar industry. However, the utilization of the remaining sugarcane bagasse waste has not been carried out optimally so that it can cause problems and environmental pollution. Therefore, appropriate processing and product creation methods are needed to optimize the potential of the resulting bagasse waste. One alternative product that can be produced from bagasse is Biochar, which can be used as a *slow-release fertilizer* as an effort to develop precision fertilizers for sustainable agriculture. In this study, a *slow-release fertilizer* was developed from the composite of Alginate and Sugarcane Bagasse Biochar.

Benefits As a place to learn to apply research results in hydroponic farmers

Constraints Partners who have hydroponic cultivation in Lampung are very limited, finally looking for partners in Bogor to test the results of the research

Outcomes Research Proposal entitled *Slow-Release Fertilizer Using Alginate/Biochar Sugarcane Bagasse Composite submitted to the ITERA Grant*



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