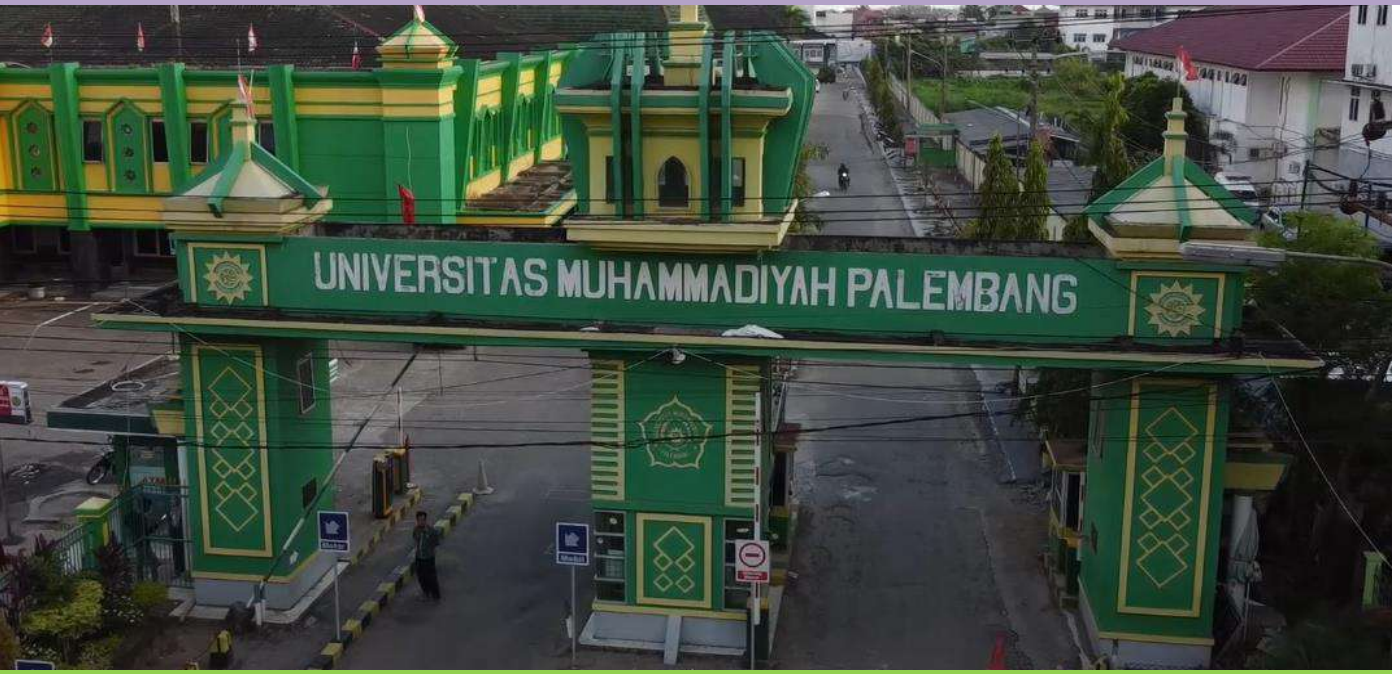
CHEMICAL ENGINEERING GRADUATE PROGRAM
UNIVERSITAS MUHAMMADIYAH PALEMBANG



BAN-PT Accredited
SK BAN-PT NO. 5882/SK/BAN-PT/Akred/M/IX/2020

Administration Office
Graduate Office Building 2rd floor

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"We commit to serve the best of our study program, policies, and systems to support Superior and Islamic graduates in the field of Chemical Engineering"

UNIVERSITAS MUHAMMADIYAH PALEMBANG
Jalan Jenderal Ahmad Yani 13 Ulu Palembang

MASTER'S COURSE PROSPECTUS 2024

Welcome Speech

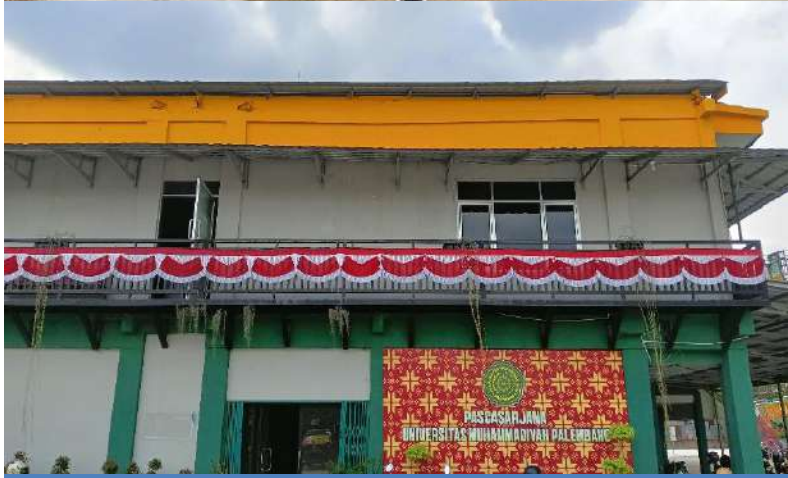
Dian Kharismadewi, S.T., M.T., Ph.D.
Head of Chemical Engineering
Graduate Program

Dear Prospective Students,

Thank you for your interest in Universitas Muhammadiyah Palembang and Chemical Engineering Graduate Program. I welcome you and encourage you to discover more about the academic information where you have benefit from the remarkable Palembang with its extensive educational opportunities in this Green Campus.

Globalization of education and the 4.0 Industrial Revolution presence are inevitable and must be faced by higher education institutions. So that, we commit to serve the best of our study program, policies, and systems to support Superior and Islamic graduates in the field of Chemical Engineering. We hope that our graduates will be able to become leaders who excel and has good personality, creative-innovative, and adaptive with the global developments.

We hope you know us better with this prospectus document and will eventually become part of our graduate program.



Administration Office
Graduate Program Building, 2rd floor

History, Vision & Mission of Study Program

Chemical Engineering Graduate Program of Universitas Muhammadiyah Palembang was established with the decree No. 269/KPT/I/2016 on August 29, 2016 from Directorate General of Higher Education Ministry of Education and Culture, Republic of Indonesia. The field of studies in Master's course generally lead to Process Technology, whether it is the process of physics, chemistry or biology with energy and environmental insights. This study program officially opened the admission of new prospective students in August 2017. In 2020, this study program is accredited with predicate of Good Quality decree No. 5882/SK/BAN-PT/Akred/M/IX/2020 from National Accreditation Agency for Higher Education, Ministry of Education and Culture.

Vision

Become a globally competitive Chemical Engineering Magister Study Program based on Islamic values in the fields of Energy and Sustainable Processes, Advanced Material Engineering, and Process and Environmental Safety.

Mission

1. Organizing a quality Chemical Engineering Magister Study Program through Catur Dharma oriented towards science and technology development.
2. Organizing Chemical Engineering Magister Study Program governance and civil service based on the principles of good governance and Islamic values.
3. Establishing National and International Catur Dharma collaboration to develop globally competitive study programs.
4. Developing Islamic and professional human resources in his fields of profession.

Master's Courses & Lecturers

Code	Subjects	Lecturer's Coordinator	Credits
1st Semester			
MWU 101	Al-Islam & Muhammadiyah	Dr. Ani Aryati, S.Ag., M.Pd.I.	2
MWP 101	Research Methodology and Philosophy	Dr. Ir. Eka Sri Yusmartini, M.T., IPM.	1
MWP 102	Advanced Thermodynamics	Dian Kharismadewi, S.T., M.T., Ph.D.	3
MWP 103	Advanced Transport Phenomena	Sri Martini, S.T., M.T., Ph.D.	2
-	Elective Course -1	-	3
-	Elective Course -2	-	3
		Credits Sub Total	**14**
2nd Semester			
MWP 201	Advanced Chemical Reaction Engineering	Dr. Mardwita, S.T., M.T.	3
MWP 202	Research Proposal	Dr. Ir. Elfidiah, M.T.	3
-	Elective Course -1	-	3
-	Elective Course -2	-	3
		Credits Sub Total	**12**

Code	Subjects	Lecturer's Coordinator	Credits
3rd Semester			
MWU 301	Thesis	Dr. Ir. Elfidiah, M.T.	6
-	Elective Course -1	-	3
-	Elective Course -2	-	3
		Credits Sub Total	**12**
		Total Credits (Semester 1-3)	**38**
Elective Courses (Semester 1 & 2)			
MWP 104	Separation Process	Dr. Ir. Elfidiah, M.T.	3
MWP 105	Reactor Analysis and Evaluation	Dr. Ir. Muhammad Arief Karim, M.Sc.	3
MWP 106	Thermal Conversion	Sri Martini, S.T., M.T., Ph.D.	3
MWP 107	Catalysts and Catalysis	Dr. Mardwita, S.T., M.T.	3
MWP 108	Corrosion Process and Prevention	Dr. Ir. Marhaini, M.T.	3
MWP 203	Particle Technology	Dr. Ir. Eka Sri Yusmartini, M.T.	3
MWP 204	Process Integration and Energy Efficiency	Prof. Ir. Erna Yuliwati, M.T., Ph.D., IPU., ASEAN.Eng.	3
MWP 205	System Modelling and Optimization	Eko Ariyanto, S.T., M.Chem.Eng, Ph.D., IPM.	3
MWP 206	Electrochemical Reaction Engineering	Dian Kharismadewi, S.T., M.T., Ph.D.	3
MWP 207	Natural Gas and Oil Processing Technology	Prof. Dr. Ir. Kgs. Ahmad Roni, S.T., M.T., IPM., ASEAN.Eng.	3

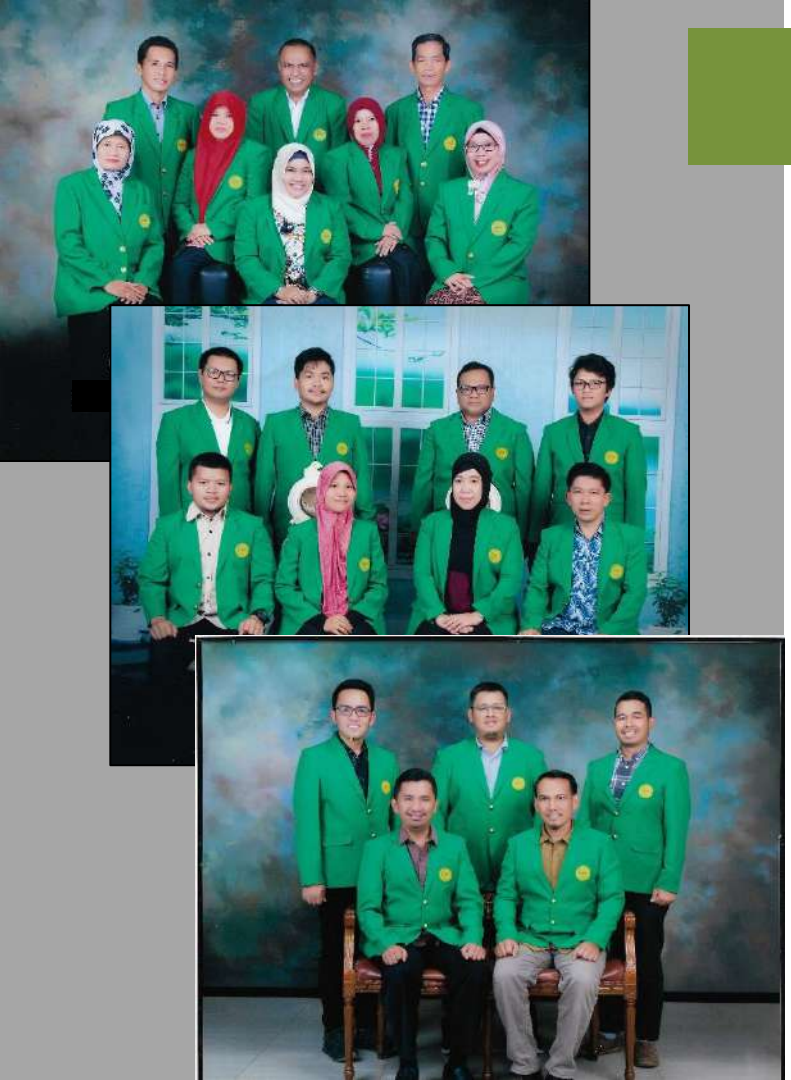
Code	Subjects	Lecturer's Coordinator	Credits
Elective Courses (Semester 3)			
MWP 302	Pinch Technology	Prof. Ir. Erna Yuliwati, M.T., Ph.D., IPU., ASEAN.Eng.	3
MWP 303	Energy Efficiency Technology for Drying Process	Eko Ariyanto, S.T., M.Chem.Eng., Ph.D., IPM.	3
MWP 304	Renewable Hydrocarbon Engineering	Prof. Dr. Ir. Kgs. Ahmad Roni, S.T., M.T., IPM., ASEAN.Eng.	3
MWP 305	Advanced Bioprocess Technology	Dr. Ir. Marhaini, M.T.	3
MWP 306	Composite Technology	Dian Kharismadewi, S.T., M.T., Ph.D.	3

Graduation of the master's program must meet the lecture load of 38 credits (compulsory courses of 20 credits and elective courses of 18 credits), during the study of 3 semesters (18 months).

Graduate's Learning Achievements According to Indonesian National Qualification Frameworks (INQF)

The diploma holder has the following competences:

***Atitude*:**	***Knowledge*:**
a. Devote to God Almighty and are able to demonstrate a religious attitude. *b. Have pride, nationalism and a sense of responsibility for the country and nation.* *c. Have the commitment and sincerity to develop attitudes, values, and chemical engineering professional.*	*a. Master and expert in the field of chemical process technology design and apply it to society.* *b. Understand the various applications of research design in technology development.* *c. Understand the performance evaluation theory and apply it in various fields.*
***General Skills*:**	***Special Skills*:**
a. Develop logical thinking, critical thinking, systematic thinking, and creative in the application of technology that reflects the value of humanities according to their fields of expertise in order to produce prototypes, work design, art products, or value-added technological innovations. *b. Make decisions in the context of solving the technological application problems that concern to and apply the humanities values based on experimental studies of information and data.* *c. Save, secure, and rediscover prototype data, works design or art products in order to guarantee the validity and prevent plagiarism.*	*a. Develop basic technical material with problem that exist in the industry and refer to 4.0 in the process of realization.* *b. Develop research into chemical and scientific chemistry with the selection of appropriate research methods and benefit the industry and society in scientific development based on applicable research ethics.* *c. Evaluate the performance of engineering staff in the process of application of tools and chemicals technology.*



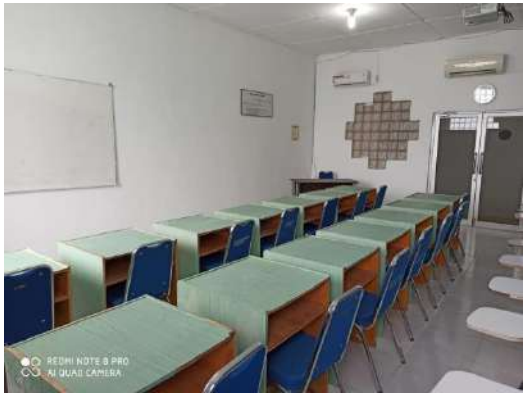
Graduate Profiles

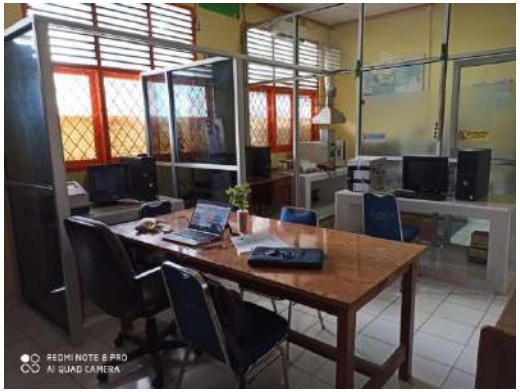
Until now, the Chemical Engineering graduate program has produced qualified and successful graduates in various fields of profession, such as:

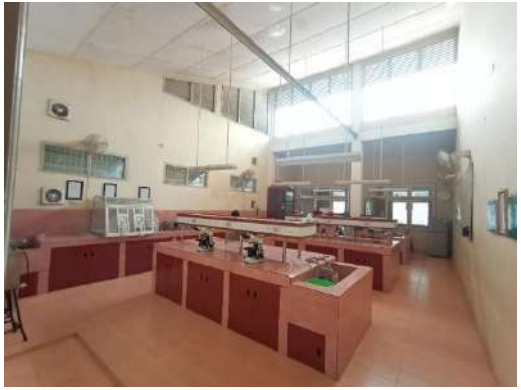
- ✓ Lecturer
- ✓ Researcher
- ✓ Consultant/Expert
- ✓ Industry Practitioner
- ✓ Manager
- ✓ Bureaucrat

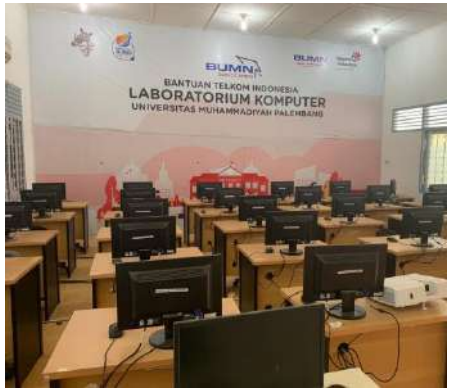
Armed with the knowledge and experience provided during learning, graduates are expected to be able to become leaders who excel and have good personalities, are creative-innovative, and are adaptive to global developments.

Room Facilities

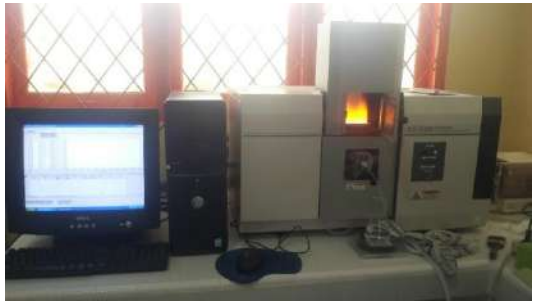








Laboratory Equipments



Atomic Adsorption Spectrophotometer

UV-Vis Spectrophotometer

Gas Chromatography

Pressure Steam Sterilizer

High-Performance Liquid Chromatography

Vacuum Evaporator

Calorimeter

Thermal Cycler

Mini Centrifuge

Oven, Drying Oven, Furnace, Water-Oil Heating Bath, High-speed centrifuge, Fume Hood, Heater, Stirrer, Rotary Stirrer, Balance, Microscope, Incubator, Refrigerator/Freezer, Distillation set, Extraction set, polarimeter, & many others common laboratory equipments are available.

Research Fields/Interest

Prof. Dr. Ir. Kiagus Ahmad Roni, S.T., M.T., IPM., ASEAN.Eng.
Research interests: renewable energy (biofuel)

Prof. Ir. Erna Yuliwati, M.T., Ph.D., IPU., ASEAN.Eng.
Research interests: membrane technology, wastewater treatment, simulation and optimization process

Eko Ariyanto, S.T., M.Chem.Eng., Ph.D.
Research interests: struvite synthesis, crystallization, leaching

Dr. Ir. Eka Sri Yusmartini, M.T., IPM.
Research interests: remediation, solid waste treatment, nanoparticle/ nanocomposite synthesis, adsorption process

Dr. Ir. Elfidiah, M.T.
Research interests: corrosion inhibitor and prevention

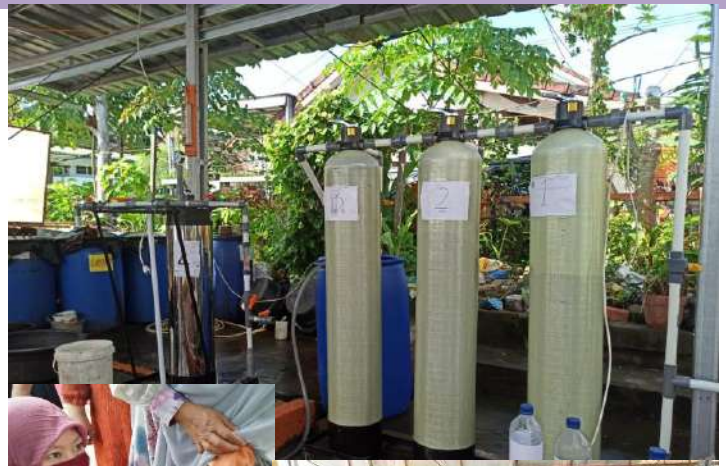
Dr. Mardwita, S.T., M.T.
Research interests: advanced materials, catalysts-catalysis, energy

Dian Kharismadewi, S.T., M.T., Ph.D.
Research interests: nanoparticle, carbon-metal oxide composite material, adsorption process, photocatalysis

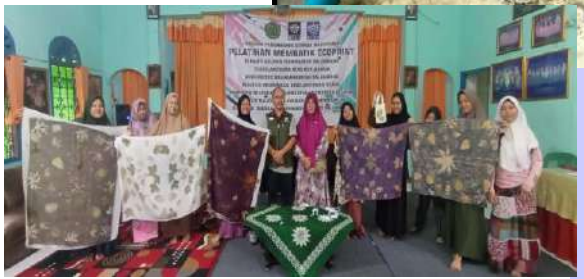
Sri Martini, S.T., M.T., Ph.D.
Research interests: wastewater treatment, membrane technology, biosorption

Research and Community Empowerment Activities

Treating Wastewater from Jumputan and Eco Print Home Industries using Ultrafiltration Membranes

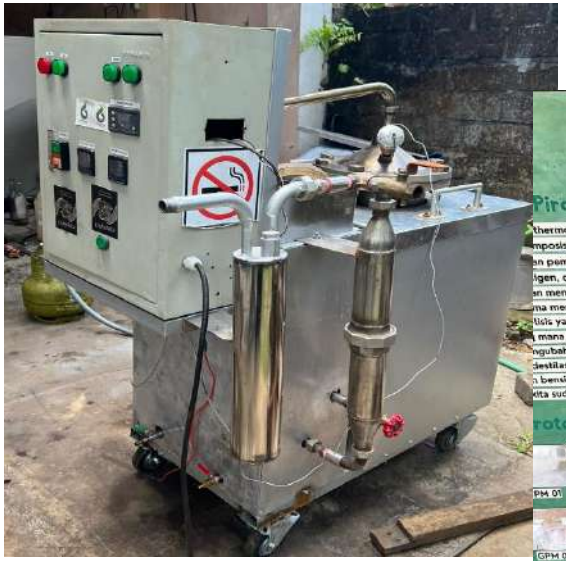


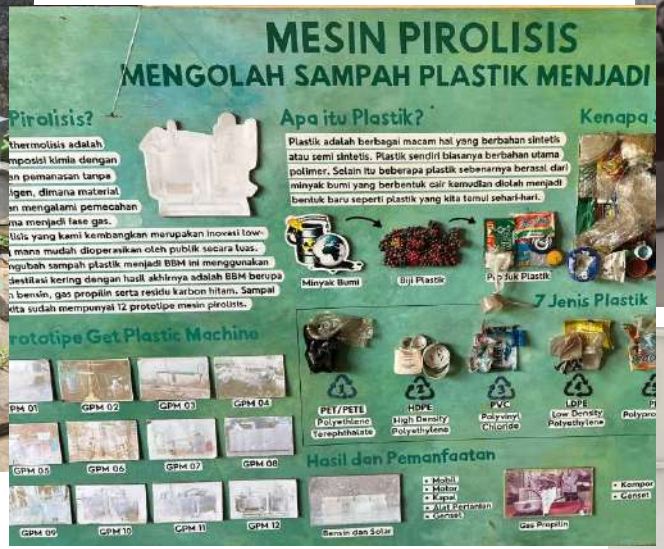
Local Culture:
JUMPUTAN

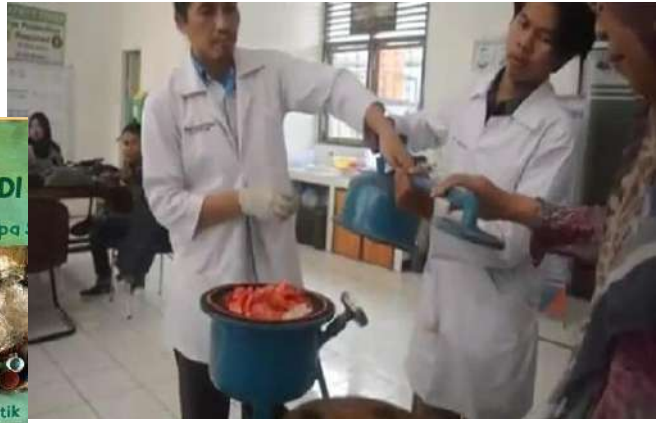


Training on the Application of Natural Dyes to Jumputan (Eco Print) to Support Green Environment

Pyrolysis of Plastic Waste to Synthetic Fuels







Admission Requirements

Required documents (in English):

- ✓ Fill out the forms by using the online application system and upload a passport-sized photo in the online application.
- ✓ A bachelor certificate and transcript from an accredited higher education institution.
- ✓ A Family Relationship or Birth certificate issued by the Government of the applicant's country.
- ✓ Passport with a validity period of more than one year.
- ✓ Certificate language proficiency test (TOEFL) with minimum score of 450.
- ✓ Recommendation letters must include the departments contact number & name of professors from the previous university.
- ✓ Registration fee 500,000 IDR.
- ✓ A passport-sized photo (color).

Admission Schedule

Odd Semester (September – February)

Online application: March - June
Submission of documents: March - June
Payment of application fee: March - June
Result announcement: July
Payment of tuition fees: July - August
Semester begin: September

Even Semester (March – August)

Online application: September - December
Submission of documents: September - December
Payment of application fee: September - December
Result announcement: January
Payment of tuition fees: January - February
Semester begin: March

Course Fees

No.	Items	Fees
1	Bridging program / month x 6 month	18,000,000 IDR
2	Tuition semester 1	10,500,000 IDR
3	Tuition semester 2	8,500,000 IDR
4	Tuition semester 3	8,500,000 IDR
5	Research + Article publication	12,000,000 IDR
6	Judicium	400,000 IDR
7	Library + Alumni donation	1,000,000 IDR
	Total Course Fees	**58,900,000 IDR**
8	Tuition per semester 5~8 (extention)	8,500,000 IDR

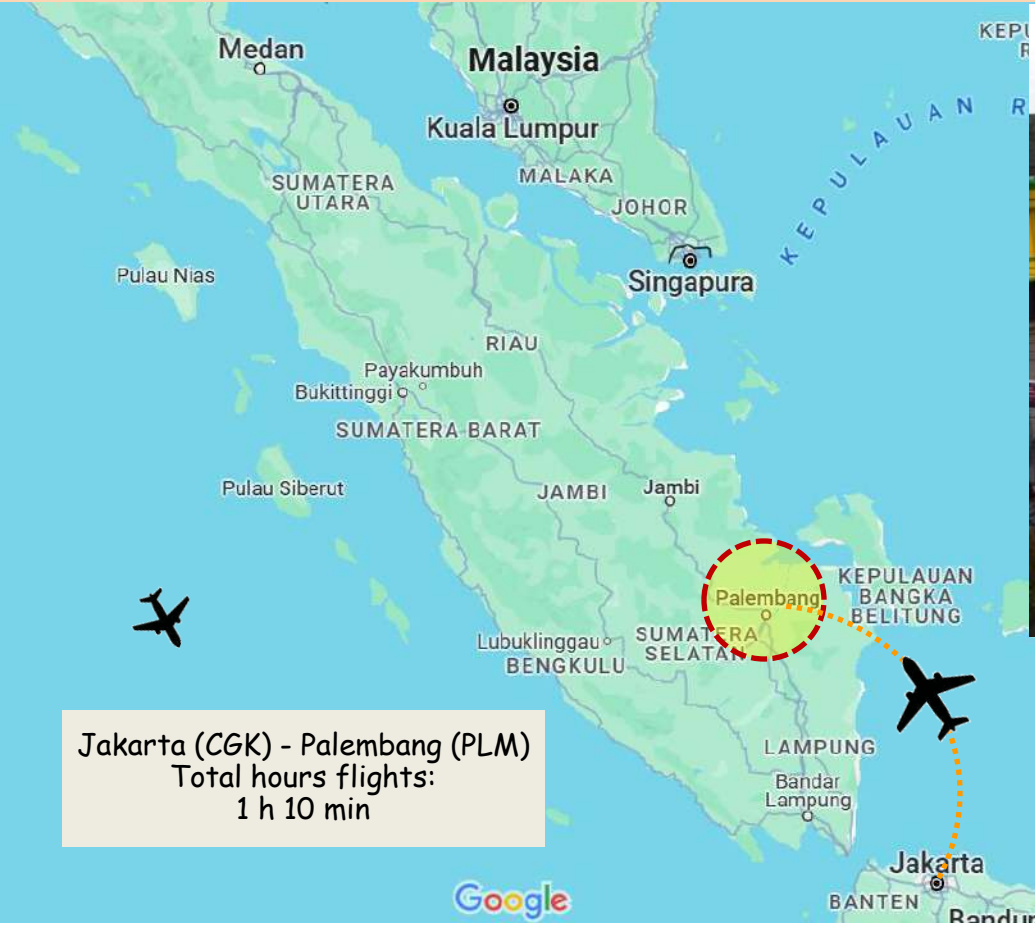
The tuition fees are stipulated in Rector decree No. 116/B-2/KPTS/UMP/V/2017.

Living Costs (Estimation)

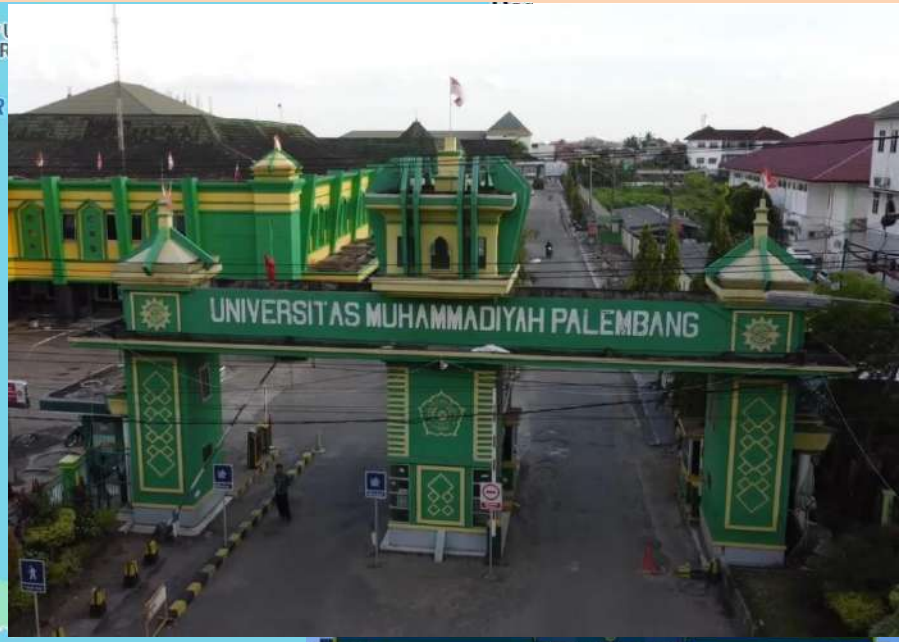
No.	Items	Fees
1	Accommodation (Hostel), 24 months x 1,300,000 IDR	31,200,000 IDR
2	Meals, 365 days x 2 years x 60,000 IDR	43,800,000 IDR
3	Transportation, 24 months x 500,000 IDR	12,000,000 IDR
4	Health Insurance, 24 months x 300,000 IDR	7,200,000 IDR
	Total Course Fees	**94,200,000 IDR**

Total Course fee + Living costs = 153,100,000 IDR (Estimated for 2 years).

Palembang City and Universitas Muhammadiyah Palembang

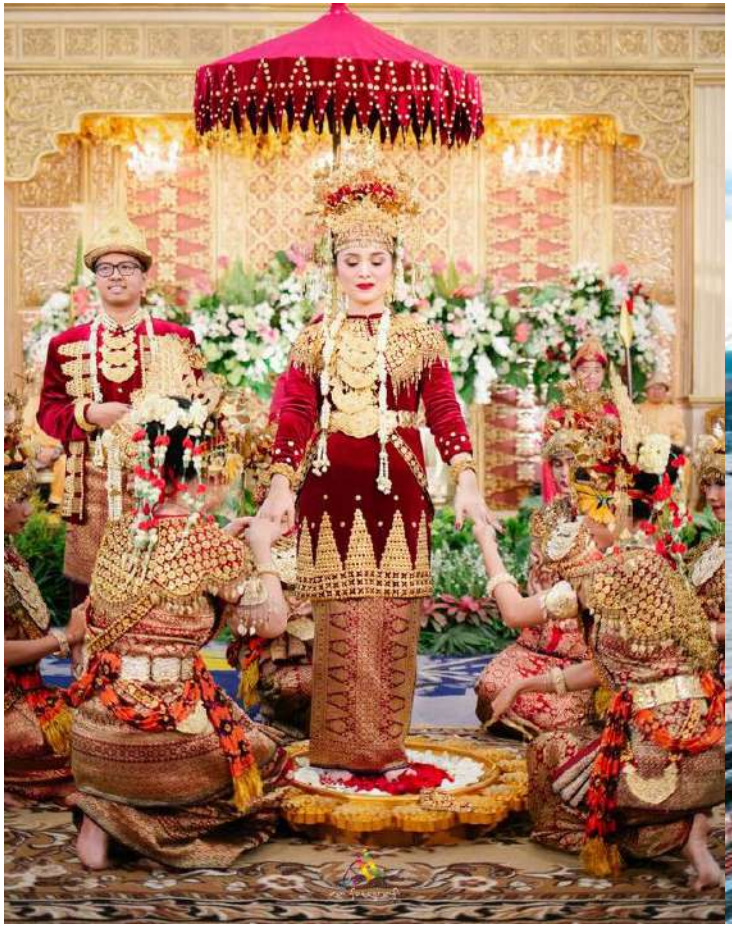


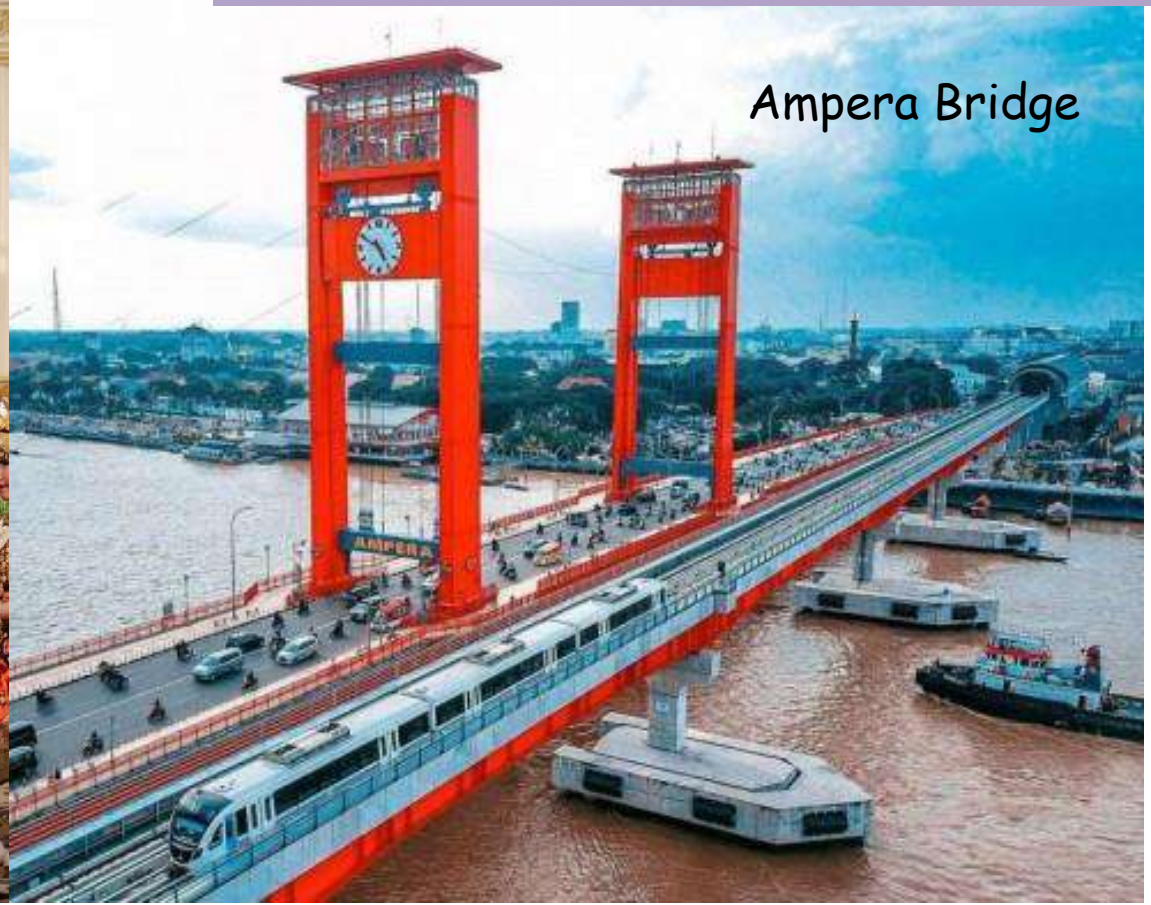
Jakarta (CGK) - Palembang (PLM)
Total hours flights:
1 h 10 min



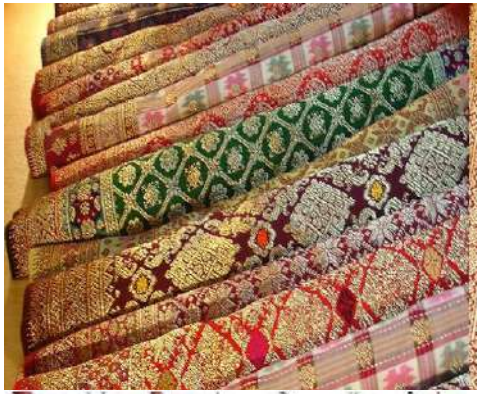
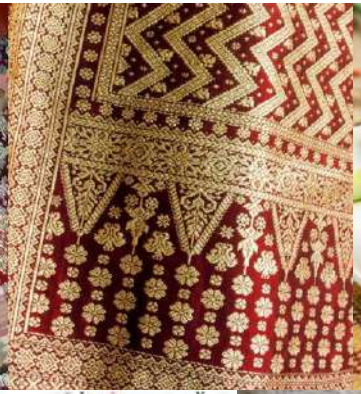
Palembang Icon and Cultures

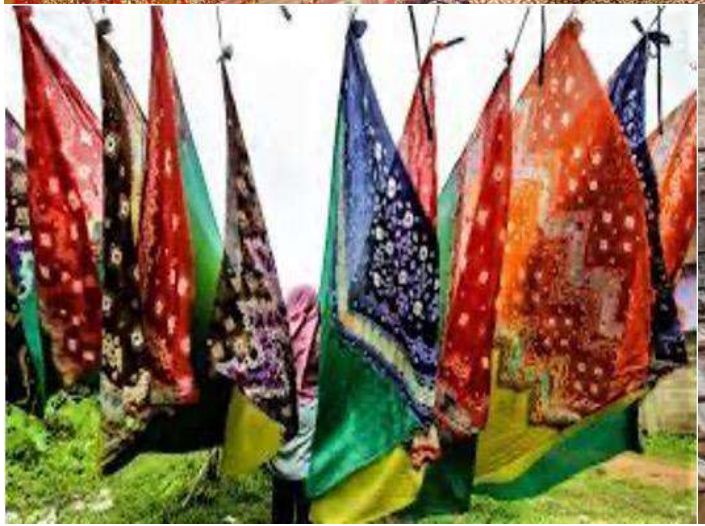
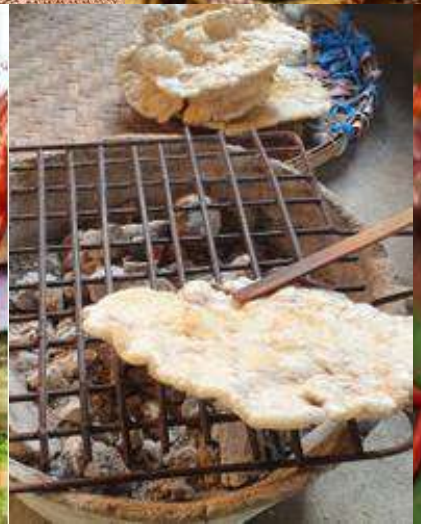
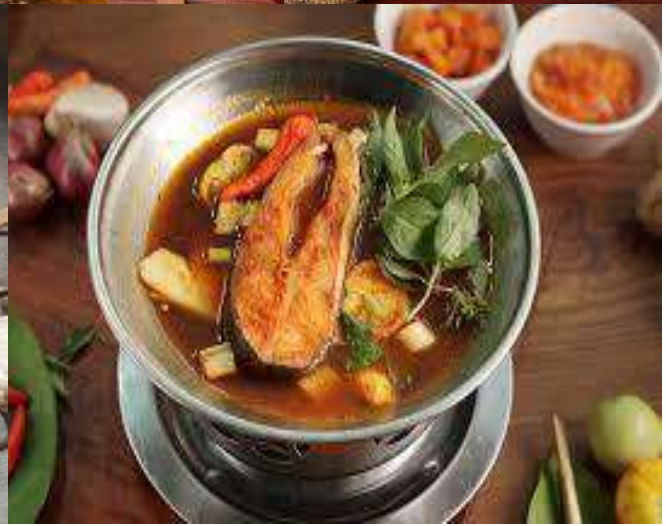
Traditional wedding customs and ceremony





Fabrics: Songket & Jumputan; Foods: Pempek, Kemplang tunu, & Pindang Ikan

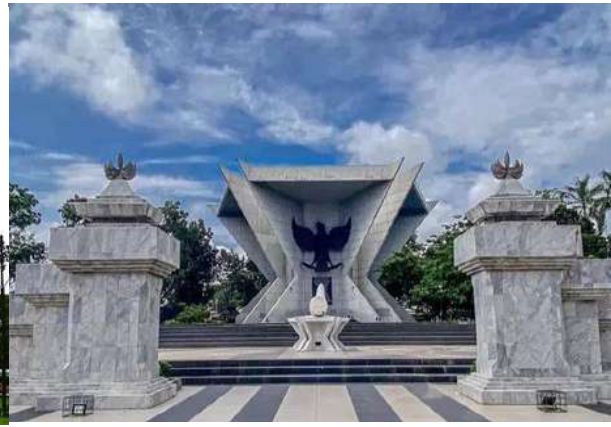



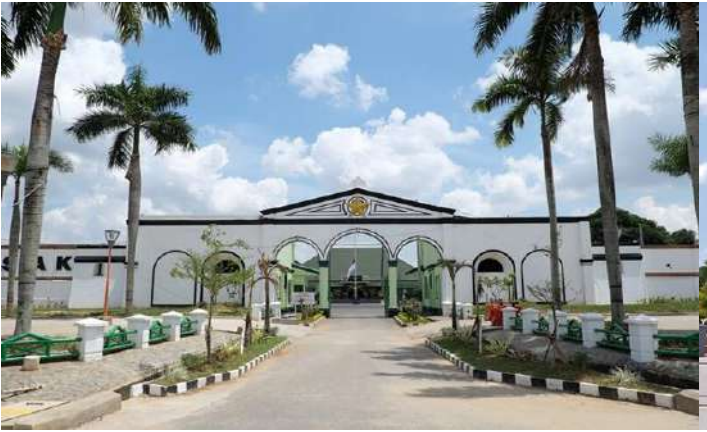
Tourism Attractions/Destinations

Ampera Bridge

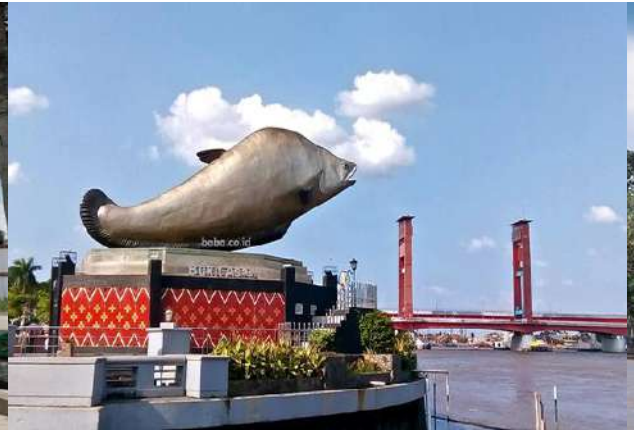
Sultan Mahmud Badaruddin Holy Mosque



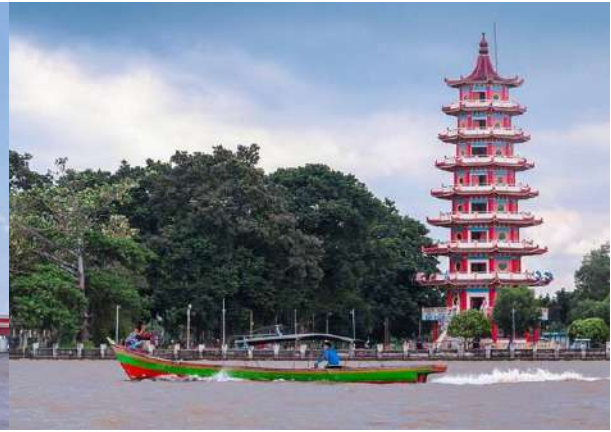
Historical Monument "Monpera"



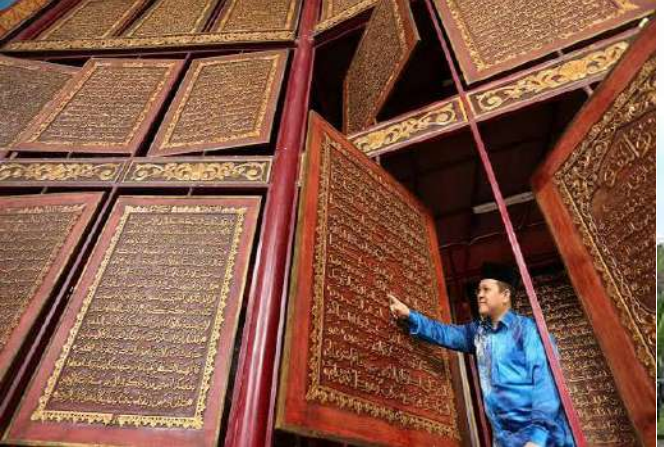
Kuto Besak Fortress



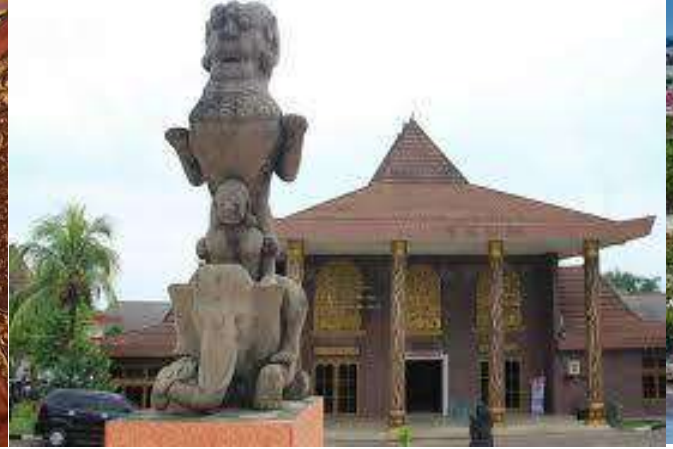
Iwak Belido Statue



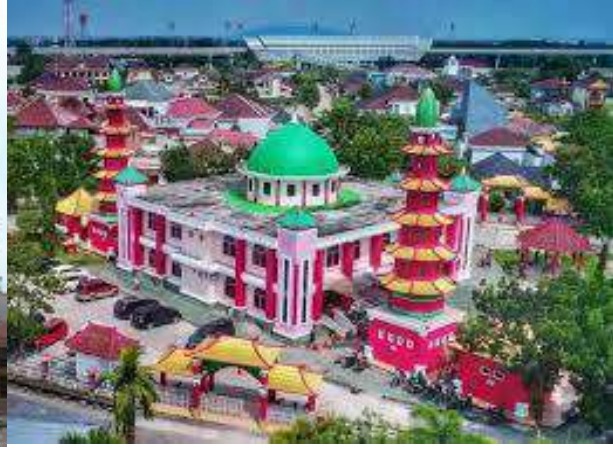
Kemaro Island



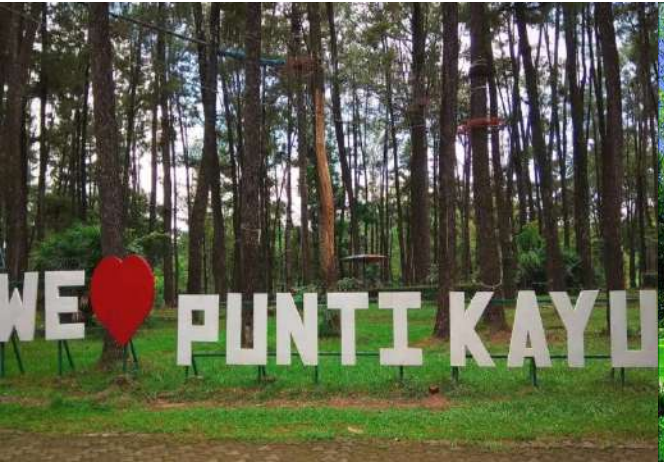
Bayt Al-Qur'an Museum



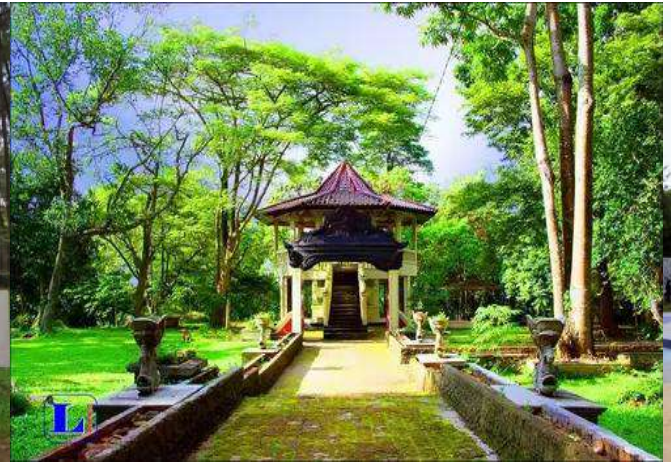
Balaputradeva Museum



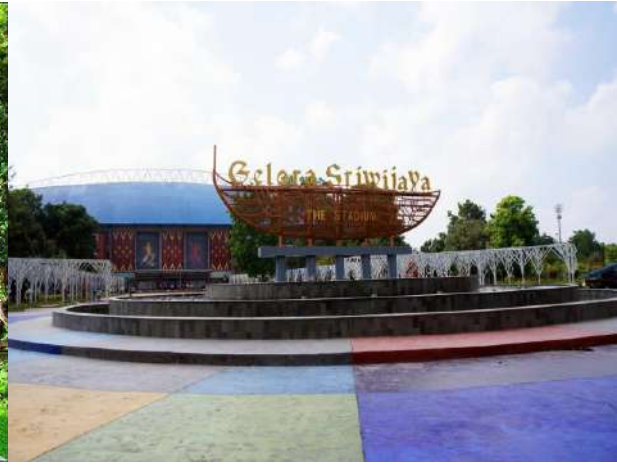
Cheng Ho Mosque



Punti Kayu Forest Tourism

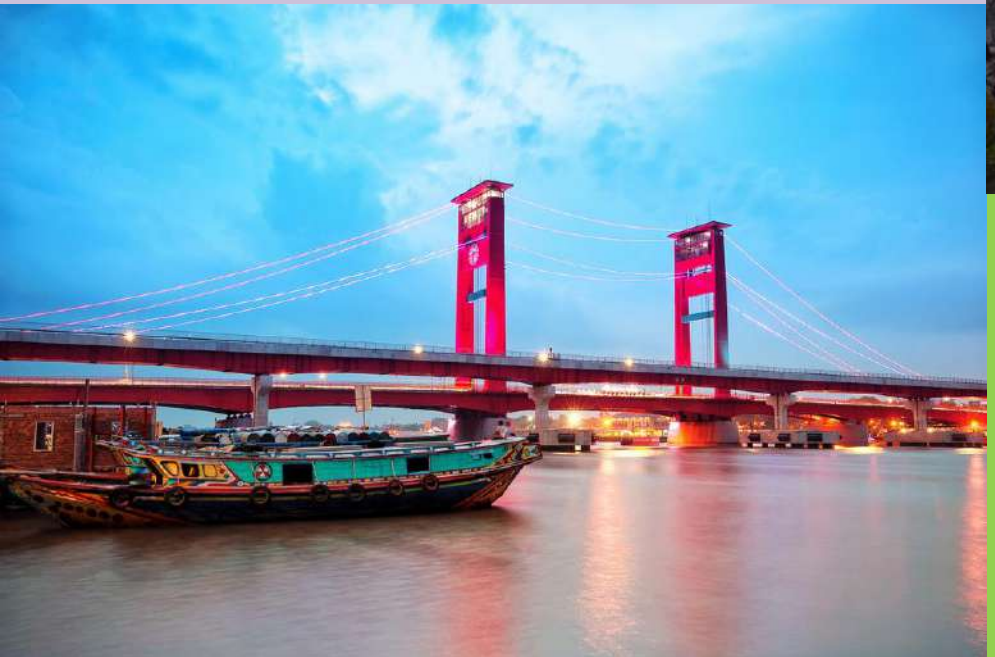


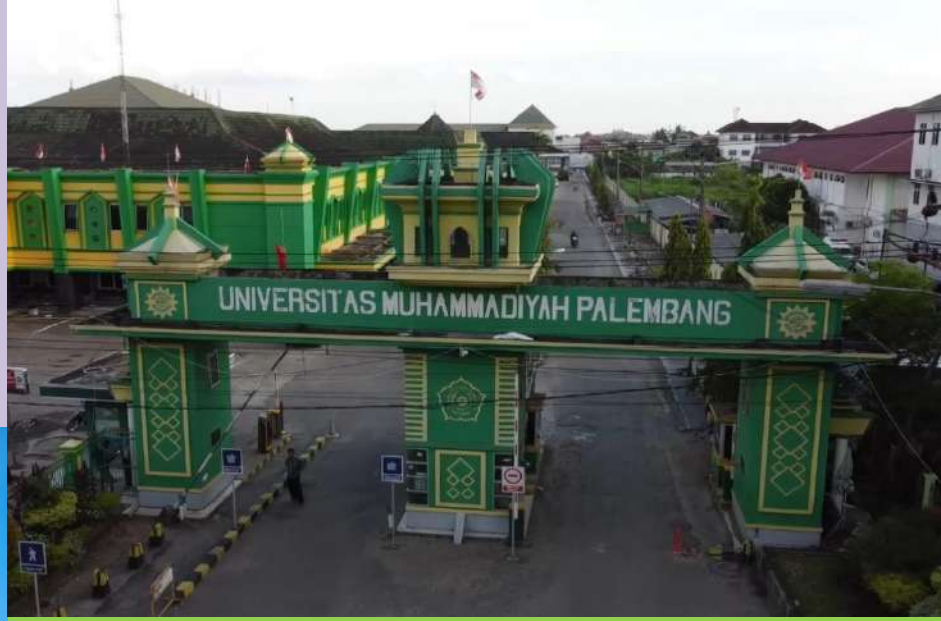
Siguntang Royal Tomb Park



Gelora Sriwijaya Stadium

Welcome to Palembang City, Indonesia and
Universitas Muhammadiyah Palembang
Our Prospective Students!





Contact Information

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Graduate Program Building, Chemical Engineering Program 2rd floor
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