



University : Universitas Padjadjaran
Country : Indonesia
Web Address : <https://unpad.ac.id/>

Zero Emission Vehicles (ZEV) Policy on Campus



Example of Zero Emission Buggy



Solar electric bicycle (Easy bike)



Example of Charging points for Solar electric bikes



Campus E-Bike



Example of Campus Bikes



Bicycle shelter at Mesjid Raya Padjadjaran



Bicycle shelter guards



Bicycle users



Bicycle lending cards

Bagaimana cara peminjaman ?

PROSEDUR PEMINJAMAN

1. Peminjam datang ke stasiun sepeda kampus
2. Peminjam meminta Perizinan untuk meminjamkan kartu identitas resmi yang berlaku (KTM bagi Mahasiswa, Kartu Pegawai bagi Karyawan/Dozen KTRPM bagi Tamu/Minia)
3. Peminjam mengisi formulir Memoranda Kartu peminjam dengan Smart Card Reader bila transaksi menggunakan sistem informasi/online, atau manual memasukkan NO ID sepeda dan data akan masuk pada register peminjaman.
4. Bila transaksi manual menggunakan register, Peminjam membaca register peminjaman manual.
5. Tagihan dan jam peminjaman NO ID sepeda Nama Lengkap Foto/Identitas NO. Telp/HP yang bisa dihubungi Stasiun Tujuan
6. Sistem berbasis online: Sistem informasi bisa layanan online atau aplikasi bisa layanan manual melalui Pelajar yang memiliki kartu sepeda kampus peminjam.
7. Peminjam mengantar sepeda di rak sepeda sesuai NO ID sepeda yang telah diberikan petugas.

PROSEDUR PENGEMBALIAN

1. Peminjam datang ke Stasiun sepeda kampus
2. Peminjam menyerahkan sepeda pada Rak sepeda dan mengisi sepeda
3. Peminjam menyerahkan kartu sepeda dan kartu identitas kepada petugas
4. Peminjam mengisi formulir kartu peminjam dengan Smart Card Reader atau manual memasukkan NO ID sepeda pada register peminjaman, bila transaksi menggunakan sistem informasi/online.

Apakah itu sepeda Kampus ?

Merupakan fasilitas transportasi gratis yang disediakan Program UNPAD sebagai sarana transportasi bagi mahasiswa UNPAD.

Siapa Yang Bisa meminjam ?

Mahasiswa S1 dan S2 UNPAD dan dosen UNPAD yang memiliki kartu identitas resmi yang berlaku.

Bagaimana cara peminjaman ?

Bisa transaksi manual menggunakan register, atau menggunakan sistem informasi/online.

Pelayanan dan Waktu peminjaman

STASIUN LAYANAN PEMINJAMAN SEPEDA KAMPUS

1. Peminjam harus mengisi formulir peminjaman.
2. Peminjam mengisi formulir peminjaman.
3. Peminjam mengisi formulir peminjaman.
4. Peminjam mengisi formulir peminjaman.
5. Peminjam mengisi formulir peminjaman.
6. Peminjam mengisi formulir peminjaman.
7. Peminjam mengisi formulir peminjaman.
8. Peminjam mengisi formulir peminjaman.
9. Peminjam mengisi formulir peminjaman.
10. Peminjam mengisi formulir peminjaman.

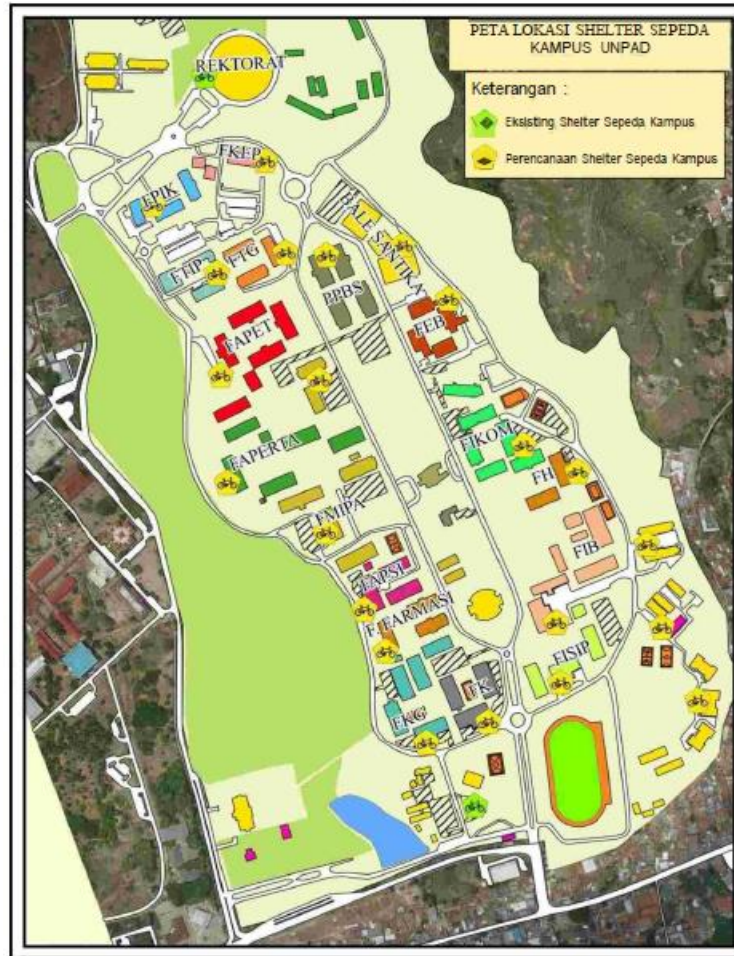
Lokasi Shelter Sepeda Unpad

1. Shelter Rektorat
2. Shelter Masjid Raya Unpad

KONTAK

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Bicycle lending guide leaflet



Bicycle Shelter Map

Description:

Average number of Zero Emission Vehicles on campus per day and the total number of Zero Emission Vehicles (ZEV) divided by total campus population :

No	Zero Emission Vehicle	Jumlah	Satuan
1	Sepeda Kampus Unpad (Bank Mandiri)	40	unit
2	Sepeda Kampus FH Unpad	7	unit
3	Sepeda Hibah Boseh Bandung	10	unit
4	Sepeda Solar Cell (Easy Bike)	20	unit
5	Sepeda Event Rebo Nyapedah & Dies Fakultas	100	unit
6	E-bike	7	unit
7	Sepeda Pribadi Civitas Unpad (i-Go Unpad)	300	unit
8	Mobil Listrik (Buggy)	2	unit
TOTAL ZEV		486	unit
TOTAL POPULASI kampus		42.489	orang
RASIO (UNIT ZEV/POPULASI)		0,01144	

In order to realize Green Campus, Unpad not only develops electric cars but also electric bicycles. They are used in the Faculty of Mathematics and Natural Sciences, Faculty of Medicine and Rectorate as the pioneers of green vehicles that can be followed by other faculties. To support the green transportation, on the other hand, Unpad also has a Campus Bike organization called “I Go Unpad” which means Ikatan Gowes Unpad. There are 2 (two) Campus Bike activities in Unpad, “Gowes Reboan” by faculty members to campaign green transportation for lecturers and staff, and “Seblak” by students to minimize the use of fueled-vehicles and



private cars. There is a positive impact of campus bike activities namely to minimize the carbon due to emission from fueled-vehicles. It can count the carbon reducing from bike activities as can be shown in the table below. (reducing 24,16 kg/day).

Carbon emission counted without Campus Bike activities

Kendaraan	Jumlah kendaraan/hari	Faktor Emisi (g/liter)	Konsumsi Bahan Bakar (liter/km)	Jarak Tempuh Rata-rata (km)	Emisi CO2 (g/hari)	Persentase
R2	3.325	2.597,86	0,0196	1,5	253.950,53	20,07%
R4	1.567	2.597,86	0,1069	1,5	652.623,38	51,59%
R>4	5	2.924,90	0,2614	1,5	5.242,76	0,41%
Shuttle	11	2.924,90	0,2614	42	353.230,81	27,92%
				(g/hari)	1.265.047,49	
				kg/hari	1.265,05	
				ton/hari	1,265	

Carbon emission counted with Bike activities in Campus

Kendaraan	Jumlah kendaraan/hari	Faktor Emisi (g/liter)	Konsumsi Bahan Bakar (liter/km)	Jarak Tempuh Rata-rata (km)	Emisi CO2 (g/hari)	Persentase
R2	3.275	2.597,86	0,0196	1,5	250.131,68	20,16%
R4	1.517	2.597,86	0,1069	1,5	631.795,04	50,91%
R>4	5	2.924,90	0,2614	1,5	5.734,27	0,46%
Shuttle	11	2.924,90	0,2614	42	353.230,81	28,47%
				(g/hari)	1.240.891,80	
				kg/hari	1.240,89	
				ton/hari	1,241	

In collaboration with some partners, Unpad provides 40 bicycles to Unpad’s lecturers and administrative staff every year at the moment of Gowes Reboan. The Campus Bicycle Service is intended for students, lecturers, educational staff, and guests of Padjadjaran University.

The infrastructure (lanes and parking lots) is also designated for private vehicles and official bicycles. Unpad also has the following procedures for using bicycles on campus:

1. The renter comes to the campus bicycle station
2. The officer asks the renter to show a valid official identity card; KTM for Students Employee Cards for Employees / Lecturers KTP / SIM for Guests / Partners
3. The officer simply scans the renter's card with a Smart Card Reader if the transaction uses the Information system / online, then enters the bike ID number and the data will enter the loan register,
4. If a manual transaction uses a logbook, the officer registers the rent, including:
 - The date and time of the rent
 - No. Bike ID
 - Full name
 - Faculties / Work Units
 - NIU / ID No.
 - NO. Tel / HP that can be contacted by the Destination Station
5. After being recorded in the Information System if the online service or logbook is complete, the officer hands over the bicycle keys to the renter
6. The renter takes the bicycle from the bicycle rack according to the bicycle ID number given by the officer



Unpad Bike Shelter Locations

1. Main Shelter : Rectorate Shelter & Masjid Raya Unpad Shelter
2. Satelite Shelter : in each Faculty and Sport Facilities

Contact :

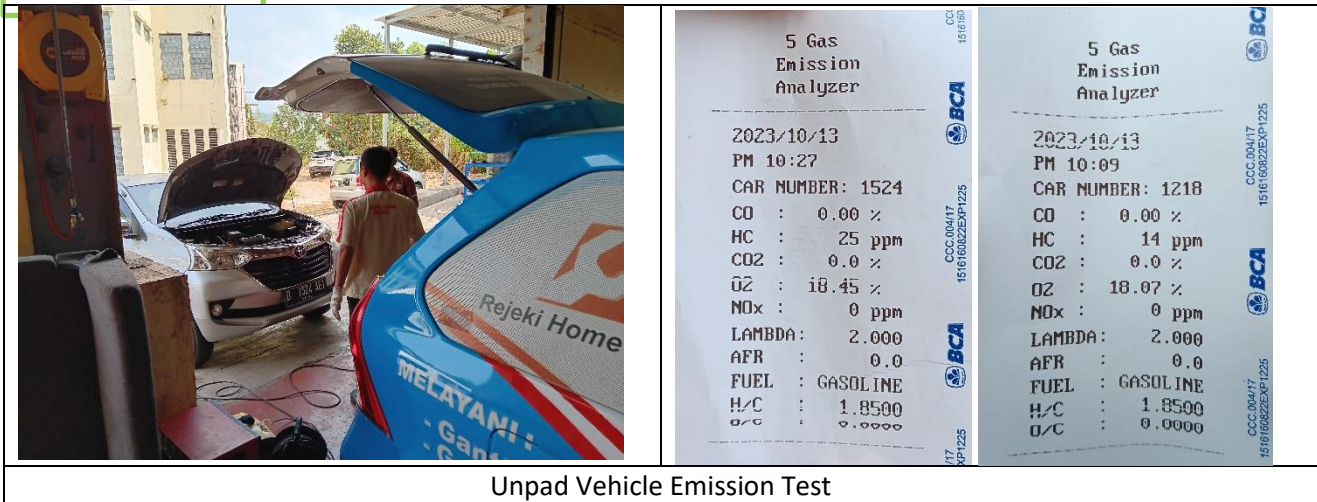
Campus Bicycle Secretariat
Universitas Padjadjaran
Gedung Rektorat UNPAD Jatinangor

Evidence link :

- Routine activities by I-GO Unpad :
<https://igo.unpad.ac.id/>
- Campaigning cycling and environment safety by composing song as the output of research grants:
<https://www.youtube.com/watch?v=WPCIWBq5QIY>
- Strava Club :
<https://www.strava.com/clubs/igounpad>

As a commitment to support the Zero Emission program, Unpad collaborated with Toyo to conduct emissions tests on existing inventory vehicles in October. Unpad plans to carry out inventory vehicle maintenance by conducting Emission Tests every 3 months a year starting in 2024. In 2023, Unpad will collaborate with dealers and technicians from Toyota Sumedang to carry out this activity. This activity was carried out for 2 days at the Unpad Vehicle Police. Apart from carrying out emission tests, Unpad vehicles are also regularly serviced, fogged and battery checked.





Unpad Vehicle Emission Test

List of Unpad vehicles that have been tested for emissions

No	Tanggal	Nopol	Merk & Tipe	Jenis	Tahun Pembuatan	Pengguna	Hasil Uji Emisi
1	12/10/2023	D 7039 FB	Isuzu NLR 55B LX	Mikrobus	2017	Angkutan Kampus (Jalur IPA)	Lulus
2	12/10/2023	D 7040 FB	Isuzu NLR 55B LX	Mikrobus	2017	Angkutan Kampus (Jalur IPA)	Lulus
3	12/10/2023	D 7041 FB	Isuzu NLR 55B LX	Mikrobus	2017	Angkutan Kampus (Jalur IPS)	Lulus
4	12/10/2023	D 7042 FB	Isuzu NLR 55B LX	Mikrobus	2017	Angkutan Kampus (Jalur IPS)	Lulus
5	12/10/2023	D 7006 DU	Hino RN8JSKASJJ/RN285	Big Bus	2017	Operasional Pool Kendaraan	Lulus
6	12/10/2023	D 7005 DU	Hino WU342R-HKMRJD3BL	Medium Bus	2017	Operasional Pool Kendaraan	Lulus
7	13/10/2023	D 1518 AKN	Toyota Kijang Zenix V 2.0 AT	Minibus	2023	Operasional Pool Kendaraan	Lulus
8	13/10/2023	Z 9901 AB	Toyota Hiace Commuter MT	Ambulance	2009	UPT Balai Kesehatan	Lulus
9	13/10/2023	D 8576 FR	Isuzu Traga PHR 54 C BB	Pick Up	2022	Operasional Tim Infrastruktur	Lulus
10	13/10/2023	D 8382 FD	Hino WU342R-HKMRJD3	Dump Truck	2017	Operasional PK3L	Lulus
11	13/10/2023	D 1549 GH	Toyota Avanza 1.5 Veloz	Minibus	2017	Operasional Fakultas	Lulus
12	13/10/2023	D 1002 DUP	Toyota Kijang Innova 2.0 V	Minibus	2017	Operasional Fakultas	Lulus