



**FACULTY OF ENGINEERING
UNIVERSITY OF PERADENIYA, SRI LANKA**

- | | | |
|---|--|--|
| 1. Administration Building
Offices | 7. Car Park | 18. Thermodynamics Laboratory |
| Dept. of Engineering Mathematics | 8. Electrical & Electronic Laboratories | 19. Engineering Workshop I |
| Industrial Training and Career
Guidance Unit (ITCGU) | 9. High Voltage Laboratory | 20. Engineering Workshop II |
| Seminar Rooms | 10. Computing Centre, Dept. of
Computer Engineering | 21. Motor Vehicle Repair Unit |
| Audio-Visual Studio | 11. Electronic Workshop | 22. Production Engineering Laboratory |
| 2. Twin Lecture Theatres | 12. Surveying Laboratory | 23. Library |
| 3. EOE Pereira Theatre | 13. Geotechnical Laboratory | Lecture Halls |
| 4. Drawing Office I | 14. Chemical Engineering Laboratory | 24. Structures Laboratory |
| Class Rooms | 15. Materials Laboratory | Lecture Halls |
| ELTU | Metallurgy Laboratory | 25. Drawing Office II |
| 5. Student Centre | 16. Fluid Mechanics Laboratory | Lecture Halls |
| 6. Canteen | Environmental Eng. Laboratory | 26. Canteen |
| | 17. Applied Mechanics Laboratory | 27. New Electrical and Electronic Laboratory |

OFFICERS OF THE UNIVERSITY OF PERADENIYA

Vice-Chancellor	Prof. A.Senaratne
Deputy Vice-Chancellor	Prof. S.K. Hennayake
Deans of Faculties	
Agriculture	Prof. K. Samarasinghe
Allied Health Sciences	Dr. D.B.M. Wickramaratne
Arts	Prof. N. Bandara
Dental Sciences	Prof. U.B. Dissanayake
Engineering	Prof. L.Rajapaksha
Medicine	Prof. M.D. Lamawansha
Science	Prof. A Wickramasinghe
VeterinaryMedicine & Animal Science	Prof. H.B.S. Ariyaratne
Registrar	
Librarian	Dr. P. Wijetunga
Bursar	Mr. M.D.Ganthune

OFFICERS OF THE FACULTY OF ENGINEERING

Dean

L Rajapaksha, BScEng Peradeniya, MEng, PhD London, MIE(SL), MIIAR, MASHRAE, CEng, FIMechE

Heads of Departments

Chemical and Process Engineering

CS Kalpage, BScEng Moratuwa, PhD Birmingham, MSLEMA, AMIChemE

Civil Engineering

PBR Dissanayake, BScEng Peradeniya, MEng, PhD Ehime, Ceng, FIESL, MSSE SL

Computer Engineering

KWHMRDB Elkaduwe, BScEng Peradeniya, PhD UNSW

Electrical and Electronic Engineering

JB Ekanayake, B.Sc.Eng. Peradeniya, PhD UMIST, FIET, FIESL, SMIEEE, CEng

Engineering Mathematics

DSK Karunasinghe, BScEng Peradeniya, PhD NUS (Singapore)

Mechanical Engineering

SDGSP Gunawardane, BScEng Peradeniya, MEng, PhD Muroran, MIE(SL), CEng

Production Engineering

RA Ekanayake, BScEng Peradeniya, PhD UNSW

Senior Assistant Registrar

SHPES. Ekanayake, B.Com(Sp) Peradeniya, PGD-HRM(Kelaniya), MBA(Colombo)

Assistant Bursar

KAIS Ranasinghe, BSc Acc. & Fin. Mgt, Jayawardenapura, CBA (ICASL), LICA (ICASL), MAAT, Dip in Eng(Aquinas)

CONTACT INFORMATION

POSTAL ADDRESS

Faculty of Engineering,
University of Peradeniya,
Peradeniya 20400,
SRI LANKA.

TELEPHONE

Dean	(081)2388322 (081)2393300
Faculty of Engineering <i>(General Numbers)</i>	(081)2388029 (081)2388827 (081)2388828 (081)2388945
Senior Assistant Registrar	(081)2393301

FAX (081) 2388158

E-MAIL deaneng@pdn.ac.lk,
areng@pdn.ac.lk

WEB [http:// www.pdn.ac.lk/eng](http://www.pdn.ac.lk/eng)



Vision

Faculty of Engineering will be the centre of excellence in engineering education and research in South Asia. The best student representative of geographical and cultural diversity, academic staff of the highest caliber, and excellent learning and research environment will ensure academic excellence and highest professional standard, nationally and internationally.

Mission

The Mission of the Faculty of Engineering is to acquire, promote, develop and disseminate knowledge of engineering sciences and its application to improve the quality of life and, in particular, to equip present and future generation with skills and attitudes to attain competence as professional engineers, and to interact with industry and community for sustainable development of humankind.

THE FACULTY OF ENGINEERING, UNIVERSITY OF PERADENIYA

The Faculty of Engineering, University of Peradeniya is the first engineering faculty in Sri Lanka. It was founded in 1950 and shifted to the present location at Peradeniya in 1964. The Faculty of Engineering is one of the eight Faculties of the University of Peradeniya, the most prestigious university in Sri Lanka located in a salubrious environment on the banks of the Mahaweli River and at the foothills of the Hantana mountain range.

The Faculty maintains its long-standing reputation for excellence in engineering education. The nationally and internationally accredited curriculum of four-year full-time undergraduate degree programme of the Faculty leads to the degree of Bachelor of the Science of Engineering (BScEng). The curriculum has been planned to offer the students a rich engineering education through technical courses, non-technical courses of cross-disciplinary breadth, laboratory and design experience, project works, field works and industrial training. The first year is the General Programme common to all students and the following three years are devoted to Specialization Programme in one of the six specialization fields of engineering; Chemical & Process, Computer, Civil, Electrical & Electronic, Mechanical and Production Engineering.

The Faculty also has several full-time and part-time postgraduate programmes leading to Diploma and MSc, MScEng, MPhil and PhD degrees. Postgraduate programmes are greatly supported by our collaborations with industry and several foreign universities. The Faculty keeps abreast with advancing technologies through research and development activities, staff training, hosting international conferences and meetings. Students and staff closely work with the industry through consultancy services, research projects, testing services and offering short courses and training programmes in various topics relevant to the industry.

There are seven established Departments of Study at the Faculty; Department of Chemical & Process Engineering, Civil Engineering, Computer Engineering, Electrical & Electronic Engineering, Engineering Mathematics, Mechanical Engineering, Production Engineering. The academic programmes and services are conducted by these Departments and are supported by the Computing Centre, Engineering Library, Engineering Workshop, Electrical and Electronic Engineering Workshop, Engineering Education Unit, Industrial Training and Career Guidance Unit, English Language Teaching Unit and the Centre for Engineering Research and Postgraduate Studies.

In this residential university, students are blessed with a conducive environment to nurture rich human qualities, to broaden their horizon by interacting with fellow students of all the communities and all the faculties while enjoying student life. There are students from all parts of the country representing a wide cross section of society within this university. Moreover, engineering students have a proud tradition of active involvement in sports, societies and community services. Needless to say, all these provide an invaluable experience for the students in their future endeavours. Also, this welcoming experience from the diverse cultural and intellectual climate undoubtedly moulds them to live in harmony in our pluralistic society respecting social and cultural values, and to be ethical citizens of Sri Lanka.

CONTENTS

	Page
Officers of the University of Peradeniya	ii
Officers of the Faculty of Engineering	iii
Contact Information	iv
Vision & Mission Statements of the Faculty	v
Introduction	vi
Undergraduate Programme	1
General Programme in Engineering	2
Specialization Programme in Engineering	3
Department of Chemical and Process Engineering	5
Department of Civil Engineering	11
Department of Computer Engineering	17
Department of Electrical and Electronic Engineering	23
Department of Engineering Management	29
Department of Engineering Mathematics	31
Department of Mechanical Engineering	35
Department of Production Engineering	41
General Elective Courses	47
Industrial Training and Career Guidance Unit (ITCGU)	49
Fees	51
Postgraduate Courses	52
Academic Facilities	53
Engineering Library	53
Engineering Workshop	54
Computing Centre	54
Electronic Workshop	55
ELTU	55
EEU	56

Engineering Design Centre (EDC)	56
Center for Engineering Research Postgraduate Studies (CERPS)	57
University Service Facilities	59
PEFAA	59
General Facilities	61
Halls of Residence	61
Sports	61
Student Societies	61
Religious Activities and Places of Worship	62
Theatre	62
Students Centre	62
Health Services	62
Student Counselling	62
Faculty Canteen	63
Road, Rail and Postal Services	63
Banking	63
Other Details of the Faculty	64
Engineering Graduates	64
The Faculty Colour	64
Past Deans of the Faculty	64
Past Professors of the Faculty	65
Emeritus Professors of the Faculty	65
Honorary Doctors of Science	66
Annexure I	
Regulations Relating to the Degree Programme	68
Rules Relating to the Degree Programme	73
Annexure II	
Student Guide	80
Annexure III	
Financial Assistance and awards	84

Annexure IV

Outline of Syllabi	89
Courses for the General Programme in Engineering	89
Courses for the Specialization Program in Engineering	89
Chemical & Process Engineering	89
Civil Engineering	95
Computer Engineering	101
Electrical & Electronic Engineering	105
Engineering Mathematics	112
Mechanical Engineering	115
Production Engineering	119
General Elective Courses	124
Annexure V	
Engineering Education & University of Peradeniya	129