

ABID ALI, PhD

3-971 Rue Belvédère Sud,
Sherbrooke, QC J1H 4C6, Canada
Telephone : +1-(819)-580-2462



Email: Abid.Ali@Usherbrooke.ca
powereng1982@gmail.com

Linkedin : <https://www.linkedin.com/in/abid-ali-65a86458/>

SUMMARY

I have more than 10 years of working experience with different organizations for research, planning, designing and implementation of renewable energy and smart grid projects. My work have mainly focused on the efficient utilisation of electricity using renewable energy systems.

EDUCATION

May 2022 – To date	Specialized PG diploma in research development Université de Sherbrooke, Quebec
Jul. 2014 – Oct.2018	Ph.D in Electrical and Electronics Engineering Universiti Teknologi PETRONAS, Malaysia
Jul. 2010 – Mar.2012	Master of Engineering in Electrical Power Universiti Teknologi Malaysia
Jan. 2003 – Dec.2006	Bachelor of Science in Electronics University of Sindh, Pakistan

AFFILIATIONS

Nov. 2022	In process for registration as Electrical Engineer - EIT with Engineers and Geoscientists BC (EGBC)
Feb. 2020	Graduate Engineer (Electrical) at Board of Engineers, Malaysia
Oct. 2011	Member of International Association of Engineers (IAENG)
Mar. 2013 – Mar 2014	Member of International Solar Energy Society (ISES)

WORK EXPERIENCE

Postdoctoral Fellow at Université de Sherbrooke, Canada

Nov. 2021 –To date

Project #1: Development of a smart hybrid-energy management system for an autonomous telecommunication station at Dorval Lodge, Quebec

Roles & Responsibilities

- Coordination and project management

Curriculum vitae

- Monitoring, analysis and performance evaluation of two hybrid electrical system stations installed at Dorval lodge (existing actual telecom station) and universite de sherbrooke (prototype reduced-scale telecom station).
- Planning and research for the development of smart energy management algorithm.
- Assessment of weather data to estimate the yields and actual production from PV arrays.
- Experiments using a simulink model (developed by our research group) to optimise the energy mix from PV arrays and diesel generator.
- Report writings.
- Timely meetings with researchers, staff and clients using MS Teams.

Project #2: Planning for standalone PV systems from community health centres in Mali

Roles & Responsibilities

- Planning and research activities for project
- Optimal sizing and designing of standalone PV system using Pvsyst
- Report writing and submissions
- Timely meetings with project members from Canada and Mali

Postdoctoral researcher at Universiti Teknologi PETRONAS, Malaysia

Mar. 2019 –Mar. 2020

Project: Peak load shaving in microgrids using solar photovoltaic power and battery energy storage system

Roles & Responsibilities

- Planning and research for the project
- Development of peak shaving algorithm and simulation using MATLAB
- Supervision of undergraduate students
- Project documentation and reporting to supervisor

Deputy Manager at Osmani & co. Pvt Ltd, Pakistan

Apr. 2012 – Apr. 2014

Roles & Responsibilities

- Planning, feasibility study, project cost estimations, engineering design, bill of quantities (BoQ) and tender design for 1 MWp solar PV park
- Tender design for installation of 80 meters wind mast
- Planning, feasibility study, weather data analysis and yield calculations for 50 MWp Wind power plant
- Planning, feasibility study, project cost estimations, engineering design, bill of quantities (BoQ) and tender design for a smart grid network (500 MW)

Project Engineer at M/s M. Khalid Construction Company, Hyderabad

Aug. 2008 – Jun. 2010

Roles & Responsibilities

Curriculum vitae

Provided support for the supervision, execution and completion of electrical projects. Services included but not limited to:

- Documentation for project designs, scheduling and planning for timely execution of projects.
- Verifications and validations of equipment purchased and drawing sheets.
- Lead a team of technicians

Trainee at Pakistan Steel Mills, Pakistan

Aug. 2007 – Aug. 2008

Roles & Responsibilities

1 year training under national internship program. The task during the training included:

- Installation and calibration of electrical control instruments and sensors.
- Monitoring and maintenance of different processing unit.
- Fault troubleshooting and reporting to the head of department

COMPUTER TOOLS

- Computer programming using C/C++, MATLAB, Python and GAMS
- Energy Simulation and Optimization using PVsyst and HOMER
- Familiar with Simulink for modeling
- Microsoft Word, Excel, Visio, PowerPoint and TEAMS
- Basic working knowledge on AutoCAD

PUBLICATIONS

Doctoral thesis

Title: Optimal planning for integration of battery-coupled distributed solar photovoltaic plants in distribution networks (2018)

Peer-reviewed articles

***A. Ali**, Maïté Volatier and Maxime Darnon (2023), Optimal Sizing and Assessment of Standalone Photovoltaic Systems for Community Health Centers in Mali (Submitted to Elsevier's Energy for Sustainable Development)

H. F. Jamahori, M. P. Abdullah and **A. Ali** (2022), "Impact And Evaluation of Optimized Pv Generation In The Distribution System With Varying Load Demands" (Under revisions at Jurnal Teknologi)

***A. Ali**, M. Fakhizan Romlie, GM Shafiullah (2022), A Bi-Level Energy Optimization Framework for Peak Load Shaving in Microgrids using Battery Storage" (Under review at Elsevier's Sustainable Energy, Grids and Networks)

***A. Ali**, N. M. Nor, T. Ibrahim, and M. F. Romlie (2018), "Sizing and placement of solar photovoltaic plants by using time-series historical weather data," Journal of Renewable and Sustainable Energy, vol. 10, p. 023702, 2018

N. M. Nor, ***A. Ali**, T. Ibrahim, and M. F. Romlie (2017), "Battery Storage for the Utility-Scale Distributed Photovoltaic Generations", in IEEE Access, Journal: IEEE Access, vol. 6,1, page(s): 1137-1154, Dec 2017

***A. Ali**, N. M. Nor, T. Ibrahim, and M. F. Romlie (2017), "Sizing and placement of battery-coupled distributed photovoltaic generations," *Journal of Renewable and Sustainable Energy*, vol. 9, p. 053501, 2017

Kumar M, Das B, Baloch MH, Nallagownden P, Elamvazuthi I, **Ali A** (2019). "Optimal Placement and Sizing of Distributed Generators and Distributed-Static Compensator in Radial Distribution System: Distributed Generators and Distributed-Static Compensator". *International Journal of Energy Optimization and Engineering (IJE OE)*. 2019 Jan 1;8(1):47-66.

International Conferences and Book Chapters

N. M. Nor, ***A. Ali**, T. Ibrahim, and M. F. Romlie "Optimal DG allocation in a distribution network considering the growth in power demand" in *Recent Technological Developments in Energy*. Book published by UTP press edited by Assoc. Prof Dr Irraivan Al Elamvazuthi (in press).

Abdullah, M.A.A., Mohd Saad, N., Abas, M.F., Jaalam, N., **Ali, A.** (2022). Optimization of Radial Distribution Network with Distributed Generation Using Particle Swarm Optimization Considering Load Growth in *Proceedings of the 6th International Conference on Electrical, Control and Computer Engineering. Lecture Notes in Electrical Engineering*, vol 842. Springer, Singapore.

Safwan, C.M.A., Mohd Saad, N., Abas, M.F., Ab-Ghani, S., **Ali, A.** (2022). Optimization of Distributed Generation Using Mix-Integer Optimization by Genetic Algorithm (MIOGA) Considering Load Growth in *Proceedings of the 6th International Conference on Electrical, Control and Computer Engineering. Lecture Notes in Electrical Engineering*, vol 842. Springer, Singapore.

H. F. Jamahori, M. P. Abdullah and **A. Ali**, "Integration of PV Distributed Renewable Energy Generation into Distribution System using Time-Varying Weather and Load Data," 2021 IEEE 19th Student Conference on Research and Development (SCORED), 2021, pp. 295-299

***Ali, A.**, Nor, N. M., Ibrahim, T., Romlie, M. F., & Bingi, K. (2018). "Big Data Storage for the Modeling of Historical Time Series Solar Irradiations". In R. Segall, & J. Cook (Eds.), *Handbook of Research on Big Data Storage and Visualization Techniques* (pp. 433-463). Hershey, PA: IGI Global. doi:10.4018/978-1-5225-3142-5.ch016.

***Ali, A.**, Nor, N. M., Ibrahim, T., Romlie, M. F., & Bingi, K. (2018). "Sizing and Placement of Battery-Sourced Solar Photovoltaic (B-SSPV) Plants in Distribution Networks". In U. Singh, A. Tiwari, & R. Singh (Eds.), *Soft-Computing-Based Nonlinear Control Systems Design* (pp. 220-251). Hershey, PA: IGI Global. doi:10.4018/978-1-5225-3531-7.ch011.

***A. Ali**, N. M. Nor, T. Ibrahim, and M. F. Romlie (2018), "Planning of Distributed Renewable Energy Resources Using Genetic Algorithm" in *Sustainable Electrical Power Resources through Energy Optimization and Future Engineering. SpringerBriefs in Energy*, Springer, Singapore. doi:https://doi.org/10.1007/978-981-13-0435-4_4

***Ali, A.**; Romlie, M.F.; Nor, N.M.; Ibrahim (2018), T.: 'Optimization for the planning of distributed renewable generators using genetic algorithm', IET Conference Proceedings, 2018, p. 29 (6 pp.)-29 (6 pp.), DOI: 10.1049/cp.2018.1322 IET Digital Library, <https://digitallibrary.theiet.org/content/conferences/10.1049/cp.2018.1322>)

***A. Ali**, N. Nor, T. Ibrahim, and M. F. Romlie (2016), "An analytical approach for the sizing and siting of battery-sourced inverters in distribution networks," in Intelligent and Advanced Systems (ICIAS), 2016 6th International IEEE Conference on, 2016, pp. 1-6.

***A. Ali**, N. M. Nor, T. Ibrahim, M. F. Romlie and Zahid Khan (2016), "Impact of Photovoltaic Plant Outputs in Distribution Networks," in 2nd UTP-UMP Symposium on Energy Systems 2016 (SES 2016), MATEC Web Conf. 225 04024 (2018), DOI: 10.1051/mateconf/201822504024

***A. Ali**, N. Nor, and T. Ibrahim (2015), "Energy storage systems and their sizing techniques in power system—A review," in Energy Conversion (CENCON), 2015 IEEE Conference on, 2015, pp. 215-220

RESEARCH ACTIVITIES

Chaired International Conferences

- Power Engineering Research Session in 17th IEEE Student Conference on Research and Development (SCOREd) 15-17 October 2019, Seri Iskandar, Perak, Malaysia
- Optimal Engineering Design and Applications Session in 17th IEEE Student Conference on Research and Development (SCOREd) 15-17 October 2019, Seri Iskandar, Perak, Malaysia

Reviewer Awards

- Received best reviewer award in 17th IEEE Student Conference on Research and Development (SCOREd) 15-17 October 2019, Seri Iskandar, Perak, Malaysia
- Achieved outstanding reviewer status for Energy (ISSN: 0360-5442) in August 2018

Reviewer

Besides reviewing several articles in international conferences, I am a recognized reviewer of the following well-known indexed journals.

- Applied Energy (ISSN: 0306-2619)
- Energy (ISSN: 0360-5442)
- International Journal of Electrical Power and Energy Systems (ISSN: 0142-0615)
- Energy and Buildings (ISSN: 0378-7788)
- Journal of Renewable and Sustainable Energy (ISSN: 1941-7012)
- IEEE Access (ISSN: 2169-3536)
- CSEE Journal of Power and Energy Systems (ISSN: 2096-0042)
- American Journal of Modern Energy (ISSN: 2575-3797)

REFERENCES

1. Maxime Darnon (Current postdoctoral supervisor)
Chargé de Recherche, Professeur Associé
Université de Sherbrooke, Canada
Tel: +1-(819)-821-8000, ext. 62137
Cell : +1-(819)-822-2453
Email: maxime.darnon@Usherbrooke.ca
2. Mohd Fakhizan Romlie (Previous postdoctoral supervisor)
Senior lecturer at Department of Electrical and Electronics
Engineering
Universiti Teknologi PETRONAS, Malaysia
Cell : +60 16 44781612
Email: fakhizan.romlie@utp.edu.my
3. Nursyarizal Mohd Nor (PhD supervisor)
Associate Professor and Chair, Department of Electrical and
Electronics Engineering
Universiti Teknologi PETRONAS , Malaysia
Cell :+60 12 5182278
Email: nursyarizal_mnor@utp.edu.my

Educational Credential Assessment for Immigration, Refugees and Citizenship Canada

Name: ALI, Abid

Date: May 25, 2022

Date of Birth: March 5, 1982

Ref#: 5534085IMM

Page: 1 of 1

CANADIAN EQUIVALENCY SUMMARY

Earned doctorate

CREDENTIAL ANALYSIS

- Name on Credential:** ALI, Abid

Credential Authentication: *Documents were sent directly by the institution*

Country or Territory: Malaysia

Credential: Doctor of Philosophy

Year: 2018

Awarded By: Universiti Teknologi Petronas

Status: Recognized Institution

Major: Electrical and Electronics Engineering

Canadian Equivalency: Earned doctorate

RE: Engineers and Geoscientists BC Engineer-in-Training (EIT) Membership Application Confirmation (User ID:243644)

Tahiya Zaman <tzaman@egbc.ca>

Mon 2023-02-06 12:22

To: Abid Ali <Abid.Ali@USherbrooke.ca>

Hello,

We are still awaiting your certified Photo ID before we can finalize your licence.

Thanks.

Best,

Tahiya Zaman | Registration Coordinator - Academic Reviews

Engineers and Geoscientists British Columbia

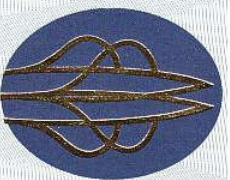
200 - 4010 Regent Street, Burnaby, BC, V5C 6N2

Tel: 604.558.6667 | **Toll-Free:** 1.888.430.8035 | **Web:** egbc.ca

The Professional Governance Act is now in force. Learn more about what's changing, including new obligations and requirements for registrants, at egbc.ca/pgg.

To prevent the spread of COVID-19, our office remains closed to the public. We will continue to support our registrants virtually. For the latest information, please visit our website at egbc.ca/COVID-19

No. 091001867



UNIVERSITI
TEKNOLOGI
PETRONAS

By virtue of the authority vested in it, the Senate hereby awards

Abid Ali

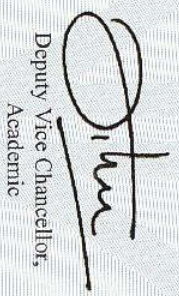
after having satisfactorily completed the requirements and examinations
prescribed by the University the degree of

Doctor of Philosophy in Electrical and Electronics Engineering

along with all the associated rights & privileges and in recognition, the Senate hereby
authorises the Seal of the University to be affixed

On This 18th Day of November 2018


Vice Chancellor


Deputy Vice Chancellor,
Academic


Registrar





UTM
UNIVERSITI TEKNOLOGI MALAYSIA

THE SENATE HAS CONFERRED UPON

ABID ALI

THE DEGREE OF

**MASTER OF ENGINEERING
(ELECTRICAL - POWER)**

VICE CHANCELLOR

REGISTRAR

DEAN,
SCHOOL OF GRADUATE STUDIES



2012M - 000280

MARCH 7, 2012

UNIVERSITY OF SINDH



BACHELOR OF SCIENCE

Session 2006

This is to certify that ABID ALI S/O MUHAMMAD HASHIM JAMALI

*..... having satisfactorily completed the
required course of study during the academic session 2006,*


was examined and declared qualified for the Degree of


Bachelor of Science in ELECTRONICS.

C.G.P.A. 3.83

Date of declaration of result 16.03.2007

Given under the seal of the University


*Controller of Examinations,
University of Sindh*


*Registrar,
University of Sindh*


*Vice-Chancellor,
University of Sindh*

Jamshoro Sindh (Pakistan) Dated 25th December 2007



UNIVERSITI
TEKNOLOGI
PETRONAS

REGISTRAR'S OFFICE

TRANSCRIPT OFFICIAL

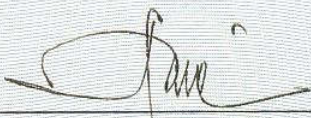
COMPLETION OF RESEARCH WORK

NAME	: Abid Ali	SEMESTER ADMITTED	: July 2014
MATRIC NO.	: G02852	DEGREE AWARDED	: Doctor of Philosophy in Electrical and Electronics Engineering
GENDER	: Male	FINAL STATUS	: Graduated
DATE OF BIRTH	: 5th March 1982	COMPLETION DATE	: 30th October 2018
COUNTRY	: Pakistan		
IC/PASSPORT	: SA1793702		

Mode of Study : Doctor of Philosophy by Research

Thesis Title : Optimal Planning For Integration of Battery-Coupled Distributed Solar Photovoltaic Plants in Distribution Networks

Viva Date : 3rd September 2018


Registrar
Universiti Teknologi PETRONAS



NAME	: ABID ALI	DATE OF ADMISSION	: 16 July 2010
STUDENT NO.	: ME101084	MODE OF STUDY	: Taught Course
IC/ISID NO.	: 201007M10056	STATUS OF STUDY	: Completed
PASSPORT/OLD IC NO.	: SA1793701	FINAL CGPA	: 3.54
DATE OF BIRTH	: 05 March 1982	DATE OF COMPLETION	: 07 March 2012
CITIZENSHIP	: PAKISTAN	DEGREE AWARDED	: MASTER OF ENGINEERING (ELECTRICAL - POWER)
GENDER	: Male	AWARDING INSTITUTION	: Universiti Teknologi Malaysia
FACULTY	: Electrical Engineering	TEACHING INSTITUTION	: Universiti Teknologi Malaysia
PROGRAMME OF STUDY	: MASTER OF ENGINEERING (ELECTRICAL - POWER)	LANGUAGE OF INSTRUCTION	: English
RECOGNIZED PRIOR KNOWLEDGE	:		

CODE	COURSE	CREDIT COURSE	GRADE	STATUS	CODE	COURSE	CREDIT COURSE	GRADE	STATUS
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CREDIT TRANSFERRED :

TOTAL CREDITS TRANSFERRED : 0

CREDIT EXEMPTED :

TOTAL CREDITS EXEMPTED : 0

SESSION 2010/2011 SEMESTER I

MEP1533	POWER ELECTRONICS SYSTEM	3	B-
MEP1633	POWER SYSTEM DEVICES & APPARATUS	3	A-
MEP1683	ALTERNATIVE ENERGY TECHNOLOGY SYSTEM	3	B
UHZ6123	MALAYSIAN SOCIETY AND CULTURE	3	A
CREDITS EARNED (THIS SEMESTER)		: 12	
CUMULATIVE CREDITS EARNED (TOTAL SEMESTER)		: 12	
GPA		: 3.34	
CGPA		: 3.34	

SESSION 2010/2011 SEMESTER II

MEP1553	HIGH VOLTAGE INSULATION & COORDINATION	3	A-
MEP1563	POWER QUALITY	3	B
MEP1603	POWER SYSTEM ANALYSIS & COMPUTATIONAL METHOD	3	A-
MEP1623	POWER TRANSMISSION & SECURITY	3	B+
MEP1643	LIGHTNING PROTECTION & GROUNDING SYSTEM	3	B+
MEP1813	RESEARCH PROJECT PROPOSAL	3	A
CREDITS EARNED (THIS SEMESTER)		: 18	
CUMULATIVE CREDITS EARNED (TOTAL SEMESTER)		: 30	
GPA		: 3.50	
CGPA		: 3.43	

SESSION 2010/2011 SEMESTER III

MEP1673	POWER SYSTEM PROTECTION	3	A
CREDITS EARNED (THIS SEMESTER)		: 3	
CUMULATIVE CREDITS EARNED (TOTAL SEMESTER)		: 33	
GPA		: 4.00	
CGPA		: 3.49	

SESSION 2011/2012 SEMESTER I

MEP1613	POWER SYSTEM CONTROL	3	B+
MEP1825	MASTER PROJECT	5	A
CREDITS EARNED (THIS SEMESTER)		: 8	
CUMULATIVE CREDITS EARNED (TOTAL SEMESTER)		: 41	
GPA		: 3.75	
CGPA		: 3.54	

THIS TRANSCRIPT WAS ISSUED BY THE SCHOOL OF GRADUATE STUDIES

Zainul Rashid Bin Abu Bakar

NAME : ZAINUL RASHID BIN ABU BAKAR
SCHOOL OF GRADUATE STUDIES
FOR VICE - CHANCELLOR
DATE : 23 April 2012



- ▶ This transcript is valid when it bears the signature of the Deputy Registrar / Assistant Registrar (School of Graduate Studies) and embossed seal of Universiti Teknologi Malaysia.
- ▶ See reverse for explanation of transcript guide.
- ▶ Release of this information to a third party requires written consent from the student.



University of Sindh

Jamshoro Sindh, Pakistan.

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Fax: (022) 2772226
2771681-90/2006

Controller of Examinations

Ref. No. CE/PA/278

TRANSCRIPT CERTIFICATE

21/03/2007

This is to certify that MR. ABID ALI S/O MUHAMMAD HASHIM JAMALI passed BS(EL) Final Bachelor of Science in Electronics Semester Examination from the Institute of Information Technology, University of Sindh, Jamshoro, Pakistan & has secured following marks as mentioned against each subject:

BS(EL) Part-I 2003 (2k3 Batch)			First Semester			Seat No. 04
S.No	Course No.	Title of the Course	Maximum Marks	Minimum Marks	Obtained Marks	Grade
1.	300	English-I	100	40	80	A
2.	302	Pakistan Studies	40	16	26	B
3.	310	Basic Electronics	100	40	87	A
4.	311	Basic Electronics (Lab)	50	20	43	A
5.	314	Introduction to Information Technology	100	40	82	A
6.	315	Introduction to Information Technology (Lab)	50	20	45	A
7.	316	Programming in C	100	40	94	A
8.	317	Programming in C (Lab)	50	20	46	A
9.	318	Engineering Mathematics – I	100	40	82	A
			690		585	

Second Semester						
S.No	Course No.	Title of the Course	Maximum Marks	Minimum Marks	Obtained Marks	Grade
1.	301	English-II	100	40	70	B
2.	303	Islamic Studies	60	24	44	B
3.	318	Electronic Circuit Design	100	40	80	A
4.	319	Electronic Circuit Design (Lab)	50	20	45	A
5.	320	Telecommunication Fundamentals	100	40	89	A
6.	321	Telecommunication Fundamentals (Lab)	50	20	45	A
7.	322	Object Oriented Programming in C ++	100	40	95	A
8.	323	Object Oriented Programming in C ++ ((Lab)	50	20	46	A
9.	324	Engineering Mathematics – II	100	40	80	A
			710		594	

BS(EL) Part-II 2004			First Semester			Seat No. 04
S.No	Course No.	Title of the Course	Maximum Marks	Minimum Marks	Obtained Marks	Grade
1	400	English –III	100	40	61	B
2.	410	Pulse & Digital Circuits	100	40	81	A
3	411	Pulse & Digital Circuits (Lab)	50	20	46	A
4.	412	Digital Logic Design	100	40	80	A
5.	413	Digital Logic Design (Lab)	50	20	30	B
6.	414	Programming in JAVA	100	40	85	A
7	415	Programming in JAVA (Lab)	50	20	40	A
8	416	Optoelectronics	100	40	86	A
9	417	Optoelectronics (Lab)	50	20	40	A
10	418	Engineering Mathematics – III	100	40	89	A
			800		638	

Second Semester						
S.No	Course No.	Title of the Course	Maximum Marks	Minimum Marks	Obtained Marks	Grade
1.	401	English –IV	100	40	66	B
2.	420	Programming in Advanced JAVA	100	40	80	A
3.	421	Programming in Advanced JAVA (Lab)	50	20	45	A
4.	422	Microprocessors	100	40	85	A
5.	423	Microprocessors (Lab)	50	20	45	A
6.	424	Data Communication & Networks	100	40	70	B
7.	425	Data Communication & Networks (Lab)	50	20	40	A
8.	426	Electromagnetic Fields & Waves	100	40	53	C
9	428	Engineering Mathematics -IV	100	40	68	B
			750		552	

(Contd. Page No. 02)

Signature
21/3/07



University of Sindh

Jamshoro Sindh, Pakistan.

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2771681-90/2006

Controller of Examinations

Ref. No. CE/PA/278

(Page # 2)

Date 21-03-2007

MR. ABID ALI S/O MUHAMMAD HASHIM JAMALI

BS(EL) Part-III 2005		First Semester			Seat No. 04	
S.No	Course No.	Title of the Course	Maximum Marks	Minimum Marks	Obtained Marks	Grade
1.	510	Microprocessors & Assembly language	100	40	90	A
2.	511	Microprocessors & Assembly language (Lab)	50	20	45	A
3.	512	Internet Working Protocols TCP/IP	100	40	91	A
4.	513	Internet Working Protocols TCP/IP (Lab)	50	20	45	A
5.	514	Communication Systems & Techniques	100	40	80	A
6.	515	Communication Systems & Techniques (Lab)	50	20	40	A
7.	516	Instrumentation and Measurement	100	40	83	A
8.	517	Instrumentation and Measurement (Lab)	50	20	41	A
9.	518	Control Engineering	100	40	73	B
			700		588	

		Second Semester				
S.No	Course No.	Title of the Course	Maximum Marks	Minimum Marks	Obtained Marks	Grade
1.	520	Analog Integrated Circuits	100	40	80	A
2.	521	Analog Integrated Circuits (Lab)	50	20	40	A
3.	520	Advanced Microprocessors	100	40	90	A
4.	523	Advanced Microprocessors (Lab)	50	20	45	A
5.	524	Radio TV. Engineering	100	40	82	A
6.	525	Radio TV. Engineering (Lab)	50	20	42	A
7.	526	Digital Control Systems	100	40	89	A
8.	528	Computer Architecture and Organization	100	40	86	A
			650		554	

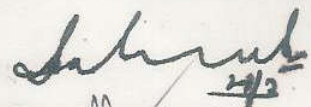
BS(EL). Final 2006		First Semester			Seat No.04	
S.No	Course No.	Title of the Course	Maximum Marks	Minimum Marks	Obtained Marks	Grade
1.	610	Microcomputer Interfacing & Applications	100	40	83	A
2.	611	Microcomputer Interfacing & Applications (Lab)	50	20	42	A
3.	612	Multimedia Systems	100	40	76	B
4.	613	Multimedia Systems (Lab)	50	20	44	A
5.	614	Robotics & Automation	100	40	83	A
6.	615	Robotics & Automation (Lab)	50	20	40	A
7.	616	VLSI System Design	100	40	88	A
8.	618	Fault Tolerant Design	100	40	80	A
			650		536	

		Second Semester				
S.No	Course No.	Title of the Course	Maximum Marks	Minimum Marks	Obtained Marks	Grade
1.	620	Artificial Intelligence & Computer Vision	100	40	80	A
2.	622	Real Time Systems	100	40	97	A
3.	624	Power and Industrial Electronics	100	40	82	A
4.	626	IP Telephony	100	40	74	B
5.	628	Project Thesis	200	80	180	A
			600		513	

Total Marks obtained in BS(EL) Final: 4560 of 5550

C.G.P.A = 3.83 PASS

The medium of instructions in this University is English


Controller of Examinations
University of Sindh, Jamshoro

Test Report Form

GENERAL TRAINING

NOTE Admission to undergraduate and post graduate courses should be based on the ACADEMIC Reading and Writing Modules. GENERAL TRAINING Reading and Writing Modules are not designed to test the full range of language skills required for academic purposes. It is recommended that the candidate's language ability as indicated in this Test Report Form be re-assessed after two years from the date of the test.

Centre Number Date Candidate Number

Candidate Details

Family Name
First Name
Candidate ID

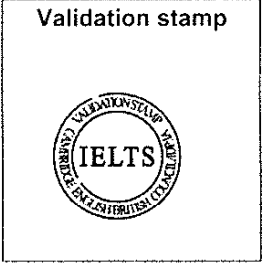


Date of Birth Sex (M/F) Scheme Code
Country or Region of Origin
Country of Nationality
First Language

Test Results

Listening Reading Writing Speaking Overall Band Score CEFR Level

Administrator Comments



Administrator's Signature

Date

Test Report Form Number