BIRZEIT UNIVERSITY

Birzeit University
Department of Electrical and Computer Engineering
First Semester 2021/2022

Course number and name: ENCS412, Interfacing Lab
Credits and contact hours: Credit: 1 (Lab.:1)
Instructor's or course coordinator's name: Dr. Wasel Ghanem, Dr. Abdalkarim Awad
Teaching Assistants: Eng. Burhan Assi, Eng. Saleem Hamo

Office hours: See Ritaj.

During the first set of experiments, the lab provides several experiments on Arduino microcontroller. Then we have some experiments on LabVIEW. After that we introduce Raspberry Pi. The experiments include topics on digital and analog sensors, dc-motors, LCD and data transmission. We introduce also some ARM-based microcontrollers

Interfacing Techniques Lab

Experiment Name	Method of Teaching	Remarks
Arduino Module		
Exp#1: Introduction to Arduino	Face to Face	
Exp#2: I2C protocol and its Applications	Face to Face	
Exp#3: UART Protocol and its Applications	Face to Face	
LabView Module		
Exp#4 Introduction to Lab View	Online	
Exp#5: LabVIEW with Arduino using LINX	Face to Face	
MBED Module		
Exp#6: Introduction to MBED	Online	
Exp#7: Digital input/outputs in MBED	Face to Face	
Exp#8: Introduction to ADC and Timers in MBED	Face to Face	
Raspberry Pi Module		
Exp#9: Introduction to Raspberry Pi	Face to Face	
Exp#10: Applications on Raspberry Pi	Face to Face	
3D Printing Module		
Exp#11: 3D Printing and Prototyping	Face to Face	

Marks Policy		
Item	Description	Weight
TO Do	Tasks to be conducted within the Lab.	20
Quizzes	A quiz at least will be conducted after every module.	20
Reports	Reports should be delivered for the first 4 modules.	30
Final Exam	Practical final exam will be conducted in the lab; details about the Exam will be delivered in the appropriate time slot.	30

Good Luck