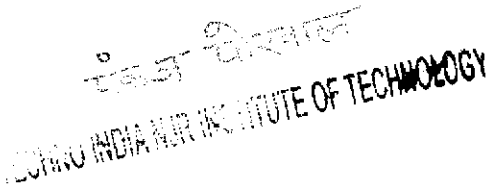
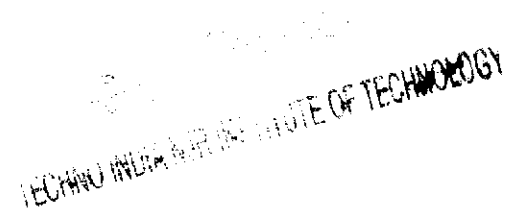
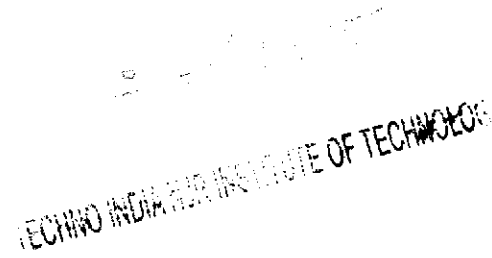
REPORT ON ADD ON / CERTIFICATE PROGRAMS OTHER THAN ONLINE COURSES: ELECTRONICS AND COMMUNICATION DEPARTMENT (2016-17)					
Name of Add on	**External/ In-**	**No. of times**	**Number**	**Number of**	**Course Outcome**
Eduvance Training	External	1	16	16	CO1. Students will be able to use the ARM Cortex Mo based microcontroller boards. CO2. Students will be able to use various interface such as SPI, UART. CO3. Students will be able to interface various sensors to develop the IOT systems
Cranes Varsity Embedded System Training	External	1	14	14	CO1. Students will be able to use the ARM based microcontroller boards. CO2. Students will be able to use various interface such as SPI, UART, I2C & CAN protocols CO3. Students will be able to interface various sensors to develop the embedded systems



REPORT ON ADD ON / CERTIFICATE PROGRAMS OTHER THAN ONLINE COURSES: ELECTRONICS AND COMMUNICATION DEPARTMENT (2017-18)					
Name of Add on	**External/ In-**	**No. of times**	**Number**	**Number of**	**Course Outcome**
Cranes Varsity Embedded System Training	External	1	14	14	CO1. Students will be able to write C code for embedded systems
					CO2. Students will be able to use MATLAB forGUI application development.
Cranes Varsity Embedded System Training	External	1	6	6	CO1. Students will be able to use the ARM based microcontroller boards.
					CO2. Students will be able to use various interface such as SPI, UART, I2C & CAN protocols
					CO3. Students will be able to interface various sensors to develop the embedded systems



REPORT ON ADD ON / CERTIFICATE PROGRAMS OTHER THAN ONLINE COURSES: ELECTRONICS AND COMMUNICATION DEPARTMENT (2018-19)					
Name of Add on	**External/ In-**	**No. of times**	**Number**	**Number of**	**Course Outcome**
CEERI Pilani SDP on IoT	External	1	3+5	8	CO1. Students will be able to use the MSP430 based microcontroller boards.
					CO2. Students will be able to use various interface such as SPI, UART.
					CO3. Students will be able to interface various sensors to develop the IOT systems
					CO4. Studetns will be able to use various IoT light weight OS and communication protocols.
Cambridge Bussiness English	External	1	16	16	Co1. Students will learn to use bussines communication etiquettes.
					CO2. Students will be able to present or express themselves in corporate world.
Industrial Training in VLSI Design and Verification by DKOP Labs Pvt. Ltd.	External	1	8	8	CO1. Students will be able to use the FPGA boards.
					CO2. Students will be able to use System verilog for VLSI cicuit design
					CO3. Students will be able to use System verilog for VLSI cicuit ASIC verification



REPORT ON ADD ON / CERTIFICATE PROGRAMS OTHER THAN ONLINE COURSES: ELECTRONICS AND COMMUNICATION DEPARTMENT (2019-20)					
Name of Add on /Certificate programs offered	**External/ In-House**	**No. of times offered during the year**	**Number (students enrolled)**	**Number of Students (completed)**	**Course Outcome**
MERC PLC Scada training	External	1	16	16	**CO1.** Programmable Logic Controller (PLC). **CO2.** Supervisory Control & Data Acquisition **CO3.**Industrial Control Panel (Designing & Maintenance)
GRRAS Solutions, LINUX Training	External	1	6+7+20	33	**CO1.** Students Will be able to configure, install, upgrade and maintain the Linux systems.
					CO2. Students will be able to manage system monitoring for performance andf optimization.
CRANES Varsity IT Readyness Module	External	1	23	23	**CO1.** student will be able to use C & C++ language to develop software applications.
					CO2. Studetns will be able to choose efficient data structures to solve the problem.
					CO3. Studetns will be able to optimize the code space and time complexity.