Sri Jayachamarajendra College of Engineering Mysore – 570 006

(Autonomous institution under Visvesvaraya Technological University, Belgaum)

Proceedings of 3rd BoG Subcommittee Meeting
Scheduled on 16.05.2018

S3.1 THE MEMBERS

Principal welcomed the members of the Sub-committee of Board of Governors of TEQIP Phase-III. This was followed by discussion on agenda notes.

S3.2 Agenda Notes:

S 3.2.1 Head: Procurement of Goods and Learning Resources

***(Equipment** (for hostel, sports and any non-academic activity not permitted); **Learning resources** (e-books, e-journals, software, text book etc.); **Furniture** (for hostel, sports and any non-academic activity not permitted, but allowed for TEQIP Cell); **Minor civil works** (for hostel, sports and any non-academic activity not permitted, no new building), (repair, maintenance & extension allowed))*

As suggested in the 2nd BoG Sub Committee Meeting a revised procurement plan for equipment and learning resources was invited for the entire institution from different engineering departments. The details of computers and other equipment as well as learning resource has been provided in two sub-heads.

S3.2.1.1 Computers:

Sl No	Computer details	Quantity	Specification	Justification
Dept. of Electronics and Communication				
1	Dell Desktop Optiplex 7050MT	40	Intel Core i7-7700 Processor (7th generation) Chipset: Intel Chipset Motherboard Memory: 4GB DDR + 4 GB Add on RAM Total 8 GB Hard Disk Drive: 1TB SATA Hard Drive (7200 rpm) Optical Drive: Add on DVD Writer (Dell) Audio: Intel High definition Audio, Dell 19.5'' Wide LED Monitor, ATX Cabinet with SMPS Keyboard & Optical 2 Button Scroll Mouse, USB Network Interface Card: 10/100/1000 Mbps Ethernet Card Peripherals Interface: 6 Hi-Speed USB. 2.0, Two PS/2 Ports, Line-in, Line-out, Microphone -in, one VGA Port, one RJ45, Operating System: Windows 10 Single (OEM) 36 Months Antivirus K7 3 Years Hardware Warranty40	Systems are with low RAM capacity and unable to run new software and simulators

Sl No	Computer details	Quantity	Specification	Justification
Dept. of Instrumentation Technology				
1	Desktop computers	40	i7 Intel Processor with OS	1)Dept. is having 40 Pentium 4 systems and it works with XP OS. 2)In JSS S& T university syllabus, Labs are integrated with Theory, New & advanced subjects are introduced and for maximum subjects open source software is used and it works with Window's 10 and they are not compatible with existing system
Dept. of Computer Science and Engineering				
1	Computer Systems (Intel i7 processor)	45	Processor - Intel® Core™ i7-7700K Processor, 8M Cache, up to 4.50 GHz Operating systems - Windows 10 and Linux 64 bit Chipset/Mother board - Intel H81 express chipset Memory -4GB DDR-3SD RAM, 133 MHz Expendable to 16 GB wit 2 DIMM Graphics Card-1GB DDR-3 AMD Radeon 5450 ADD-N Hard Disk Drive-1TB SATA, 7200 RPM 6Gb/S Audio- Integrated Stereo sound with internal speakers Monitor -19.5" wide TFT LED backlit Wider Screen Monitor Key Board- USB Key board Mouse- Optical USB scroll mouse Ports- USB 2.0 in front (2 Nos.), USB 3.0 in rear (2 No), HDMI Port, Speaker (1No), Mic (1No), Head Phone (1No), RJ 45 (1No), VGA(1No) Power Cable - Power cable for connection CPU and Monitor Integrated Gigabit Ethernet LAN 10/100/1000 Mbps with Wi-Fi Power Supply-Switched Mode power supply(SMPS) 300 watts Anti-Virus -Anti-Virus Protection for Three years. Warranty -Three years onsite	To replace 45 Nos. of Obsolete Computer Systems purchased under TEQUIP-I on 23-01-2006.
2	Computer Systems (Intel i7 processor)	45		To meet the laboratory requirement with the additional student strength and new curriculum being adopted as per NBA guidelines
Dept. of Electrical and Electronics Engineering				
1	Desktop computers	20	Desktop PC meeting at least the following specifications or better CPU : Intel Core i5 7th Generation Processor, 8 GB RAM, 1 TB HDD, optical DVD R/W drive, on-board sound, on-board high resolution graphics support, LAN connectivity support, Wi-Fi network support, optical mouse, 105 keyboard, with UEFI/Legacy Boot supported BIOS suitable for booting both GNU Linux and MS-Windows 10 OS, Windows 10 OS with media, 19-inch LED monitor capable of 1366x768 pixels maximum resolution, 3-years replacement warranty and support	As a part of the Industry Institution Interaction with Schneider Electric there has been continuous interaction and meetings with the team managers/experts from Schneider. The Elective Courses Advanced Industrial Automation for 8th Semester and Advanced Energy Management System for 6th Semester is being offered. This program is in line with the present OBE requirements and provides the students of current trends in automation and latest developments in the technology. We have been provided with the So Machine V4.3 software which is the latest version by

				Schneider. The minimum requirement and the recommended System for So-Machine Software is Processor: Intel® Core™ i7 or equivalent with RAM: 16 GB and HDD: 500GBOperating System: Windows 7 Professional. As the available systems in the lab presently do not meet the minimum requirements. We have been required to update the systems for the PLC Automation Lab set up under "Schneider Center of Excellence. The Energy Management systems lab with Smart Meters necessitates the communication software and VFD systems need software which cannot be effectively installed in the available system. The procurement would also help in providing the students facility to conducti projects with the cutting edge technology with industry inputs. Also the course on IOT with special reference to Electrical Engineering is being offered by Industry expert from L&T and the software for this course also requires computer systems. The power system analysis software ETAP software and MiPower updated versions require higher end servers. As these are core courses it is required to procure the Server. Most of the courses in electrical engineering are required to make use of simulation software. Even the open source software requires systems with Processor: Intel® Core™ i7 or equivalent with RAM: 16 GB and HDD: 500GBOperating System: Windows 7 Professional The procurement of the computer systems and server would be effectively fulfilling the curriculum requirement and in addition used for conduction of workshops .
2	Server	01	Server meeting at least the following specifications or better -- Intel(R) Quad Core E5506 Xeon (R) Processor CPU, 2.13GHz, 4M Cache, 4.86 GT/s QPI, No, 2TB 7.2K RPM SATA II 3.5" Hard Drive-Non Hot plug, 16 GB Memory 1333 MHz, Dual Rank LV RDIMMs, Integrated Graphic card, 16 x SATA DVD-ROM Drive for MS 2008 R2, Power Supply, 525 W, Windows Server Standard 2012 or later version, Windows Server CAL 2012 (5 User) or later version, 18.5 inch Monitor., 3 years replacement warranty and support	

Sl No	Computer details	Quantity	Specification	Justification
Dept. of Information Science and Engineering				
1	Desktop computers	40	7th Generation Intel(R) Core(TM) i5-7100 -4GB DDR4 2400MHz,-1TB 7200 rpm, SATA HDD,- Integrated Graphics card	Systems to be used for computation and simulation, IoT, Web programming, Mobile application development, etc.
2	High-end Computational Device	40	7thGeneration Intel(R) Core(TM)i5-7100 - 8GB DDR4 2400MHz -1TB 7200 rpm SATAHDD - Integrated Graphics card-GPU:NVIDI A 2GB DDR3	Systems to be used for Multimedia computing, Big data analytics, Deep learning, Artificial Intelligence,
Dept. of Civil Engineering				
1	Desktop Computers	25	Processor: 8th generation intel core i7 - 8700K 6-core processor (12M Cache, up to 4.7 GHz) Memory: 16 GB/32 GB DDR4 2666MHz Hard Drive: 256 GB M.2 PClex4SSD+ 1TB/2TB 7200rpm SATA Video Card: NVIDIA GeForce GTX or AMD Radeon RX-2GB/4GBGDDR5 Sound card: integrated 5.1 channel audio with waves Maxx Audio pro other standard accessories Monitor: Full HD LED 24"/27" size	Existing computer procured under TEQIP-I are not in working condition and cannot be upgraded. Hence it is required to replace by new desktop computer
Dept. of Environmental Engg				
1	Desktop Computers	30	Intel core –i7-7700 Processor (7^{th} Generation) Chipset- Intel Chipset Motherboard Memory – 4GB DDR+4GB Add on RAM total 8 GB Hard Disk Drive- 1 TB SATA hard Drive (7200 rpm) Optical Drive – Add on DVD Writer (Dell) Audio – Intel High Definition Audio Dell 19.5" wide LED Monitor, ATX cabinet with SMPS keyboard & Optical 2 button Scroll Mouse USB Network Interface card: 10/100/1000 Mbps earthnet card Peripherals interface: 6Hi- speed USB 3.0 Two PS/2 ports Line in Line- out Microphone – in, one VGA Port, one RJ45. Operating system: Windows 10 Single (0EM) 36 months Antivirus, Tend Micro internet security 3 year hardware warranty	At present in our department CADA laboratory we have only 15 computers. For first year students' strength of 60 Nos. we have to run two batches of each batch of 30 students has to be accommodated to computational lab in first semester. UG students will have a routine computer Aid Design Analysis lab (CADA) (EV 76L) in VII Semester. Further, UG students need to use CADA lab for their final year project. In addition to the above, two PG programs (M.Tech. in Environmental Engg and M.Tech. Water and Health Science Engineering) with 30-35 students need to use the CADA laboratory during their course work as well as in their Dissertation work. At present the Dept. of Environmental Engineering have about 15 research scholars who also need to use computers for their research work. Faculty also use the computers for our department Consultancy Work.

Sl No	Computer details	Quantity	Specification	Justification
Library and Information Centre				
1	Desktop computers	20	4 GB RAM 1 TB configuration i7 model computers	The computers are available in lending section presently having 2 GB RAM those computers are not supporting to lib soft software because of that circulation is getting slow it cause much problem to students for issue &return of books.

S3.3.1.3 Projectors:

Sl. No.	Dept.	Detailed specification	Quantity and unit price (Estimated)	Justification for Procurement
1	IT	LCD Display, Light O/P 5000 HDMI and USB I/P Audio Stereo	02	For classroom & Labs 2 projectors are required
2	E&EE	Multimedia projector	02	
3	CS	Portable Projectors , HD Quality	02	Student training & for Dept. presentation
4	ENV	EPSON EB-Multimedia projector (3LCD, 3300, lumens, XGA resolution (1024X768), 1500:1 Contrast Ration, with VGA HDMI & USB inputs for pen drive up to 10000 hrs lamp of lie in eco mode	02	At present we have only one multimedia project is working which is available in our department seminar hall, We have two PG Programme and in the PG class

S3.3.1.2 Equipment & Learning Resources:

Sl. No.	Name of Equipment/ Learning Resource	Detailed specification	Quantity and unit price (Estimated)	Total cost in Rs.	Justification for Procurement
Department of Electronics and Communication Engineering					
Learning resources					
1	Visual TCAD & Genius Device Simulator	PROFESSIONAL Version (2D and 3D) Visual TCAD & Genius Device Simulator Include: Visual TCAD GUI Device structure drawing tool Circuit schematic capturing tool GUI simulation controller Visualization tool of simulation results Spreadsheet X-Y plotting tool SPICE (Simulation Program with Integrated Circuit Emphasis) circuit simulation + GENIUS 2D & 3D Parallel Device Simulator. Drift-diffusion model; Lattice heating model; Energy balance model; Density Gradient Quantum Model; Strain Dependent Model; DC, AC and transient simulation mode; Circuit/Device mixed simulation; Ray-tracing Optical Simulation; Material library with 30 material types; A wide range of mobility models; Impact ionization model; Band-to-band tunneling model; Carrier trapping at defects; Hall effect; 3D Ray-tracing optics; 2D FEM Optics; + Gds2Mesh 3D TCAD model construction tool device model generation from GDSII mask layout and Process. Constructive 3D geometry engine; Create 3D structure by extruding mask polygons; Extract 2D polygon graph from GDSII file; Or Build and modify polygon graph	1 license + 1GUI	7,00,000	Given Separately according to college norms

		with scripting; Boolean operation of 2D graphs and 3Dobjects; Customizable process rules with scripting; Python programming interface; Masked doping profile placement High-quality tetrahedral mesh Export mesh in popular data formats+ Visual FAB Simulation Workbench			
2	Cadence UG / 3 Years /10 Users Analog & Digital FE &BE (UG3Y10 L) New	Or CAD University Simulation Bundle: Or CAD Capture Or CAD CIS Option Or CAD P Spice A/D Or CAD P Spice Advanced Analysis Or CAD SLPS Option (Latest version, perpetual license) period of 3 Years	10 Licenses	7,90,600	VLSI lab and research
Equipment					
1	ARM CORTEX M3 1768 EVALUATION BOARD	LPC1768 is ARM Cortex M3 based micro controller with 512KB flash memory and 64KB SRAM In-System Programming (ISP) and In-Application Programming (IAP) capabilities. Single 3.3 V power supply (2.4 V to 3.6 V). 12MHz Crystal Piggy Back module containing LPC1768 controller Standard JTAG connector with ARM 2×10 pin layout for programming/debugging with ARM-JTAG Reset push-button for resetting the controller One RS232 interface circuit with 9 pin DSUB connector: this is used by the Boot loader program, to program LPC1768 Flash memory without external Programmer. Application program can also use this UART for serial communication DC motor interface with direction and speed control Stepper motor interface with direction and speed control 16×2 alphanumeric LCD Display On chip ADC interface circuit with POT, 8-bit DAC interface 4x4 Key-Matrix connected to the port lines of the controller One External interrupt circuit with LED indication, Two-digit multiplexed 7-segment display interface, Interface circuit for on board Buzzer, Relay and Led indication controlled through push button. Standard 26-pin FRC connectors to connect to on-board interface or some of standard External Interfaces.	10 and 10000	1,00,000	Syllabus is revised and experiments have to be conducted using kits. According to Autonomous, University syllabus and BOS recommendations these subjects must have integrated lab components. This very important regarding to NBA
2	Digital Communication Trainer Kits:	ASK, FSK, BPSK, DPSK, QPSK, DM, PCM, OFDM, TDM,IOT and TCM	11 and Rs. 22,000	2,42,000	Under Autonomous and VTU syllabus (Evening College) there are subjects on communication like Optical fiber communication, Micro
3	Optical Fiber Trainer Kit	Fiber, Laser source, Connecters, Couplers, Optical power meter, optical amplifier and accessories	1 and Rs. 1,60,000	1,60,000	

4	Function Generators	AF(2) and RF(3)5MHz	5 and Rs. 30,000	1,50,000	wave and antennas, Analog communication, Digital communication, Wireless communication & Mobile communication.
5	Regulated Power Supplies	Regulated Power Supplies	5 and Rs. 30,000	1,50,000	
6	Microwave bench set in the X band with accessories	Microwave bench set in the X band with accessories	1 and Rs. 1,50,000	1,50,000	According to Autonomous syllabus and BOS recommendations these subjects must have integrated lab components. This very important regarding NBA
7	Digital Communicat ion Trainer Kits:	ASK, FSK, BPSK, DPSK, QPSK, DM, PCM, OFDM, TDM,IOT and TCM	11 and Rs. 22,000	2,42,000	Our department is applying for accreditation in 2018-19. Due to number of constraints (like number of batches, staff, lab availability etc.) we are unable to have subjects with integrated labs. Hence we are having only two labs for seven subjects on communication namely Analog communication lab &Advanced communication lab. To conduct some basic experiments using discrete components and kits these equipment are needed.
8	Digital Electronics Lab Equipment i.Patch chords ii. Digital IC trainer Kit(10 kits)	Panel mounted on a metal box. 10 logic input signals,10 output indicators, logic pulses (High & Low) 7-segment display clock generator 1 Hz, regulated power supply (+5V, +12V). 16-PIN ZIF Sockets – 4nos. 40-PIN ZIF Socket – 01no.	i)10 pair Patch chords and per pair 150 ii)10 kits and per kit 10,250	15,000 and 102500	Digital electronics lab-The kits are brought before 25 years and does not gives proper expected output. Switch, sockets and input-output terminals are not working. To conduct experiments with more number of student in batches. Syllabus is revised and experiments have to be conducted using kits.
9	IOT –Kit	Quad Core 1.2GHz Broadcom BCM2837 64bit CPU 1GB RAM BCM43438 wireless LAN and Bluetooth Low Energy (BLE) on board 40-pin extended GPIO 4 USB 2 ports 4 Pole stereo output and composite video port Full size HDMI	15 and per kit 7000	105000	Syllabus is revised and experiments have to be conducted using kits. According to Autonomous, university syllabus and BOS recommendations these subjects must have integrated lab components. This very

		CSI camera port for connecting a Raspberry Pi camera DSI display port for connecting a Raspberry Pi touchscreen display Micro SD port for loading your operating system and storing data Upgraded switched Micro USB power source up to 2.5A Connectors for R Pi boards. Power sources -10k mAh. Display Keyboard			important regarding NBA.
Department of Instrumentation Technology					
1	EMBEDDED SYSTEMS Raspberry Pi 3 Model B	A 1.2 GH- 64 Bit Quad Core ARMV8 CPU 802.1 in wireless LAN Blue tooth 4.1 Blue tooth low energy (BLE) 1 GB RAM 4 USB Ports 40 GP IO Pins Full HDMI Port Ethernet Port Combined 3.5 Audio Jack and Composite Video Camera Interface (CSI) Display Interface (DSI) Micro SD Card Slot (Now pushpul rather than push push Video core 4th 3D Graphics core	10 Nos 13,750=00 (with 18% GST)	137500 (with 18% GST)	In JSS S& T university syllabus new embedded subjects like Python programming with Raspberry Pi Is introduced, embedded systems labs are to be upgraded.
2	Arduino Uno R3 Board – Tarter Kit	Microcontroller: Atmega328 Operating Voltage: 5V DC Input Voltage (Via DC Adapter) 9V DC Alternate Input Voltage Source: USB Connection, Digital Inputs pins:14 (which 6 can be used as PWM output) Analog input pins: 6 (with modification in code, these pins act as normal I/O pins), DC Limit for I/O pins: 40 mA, DC Current Limit for 3.3 V pin: 500mA (If input voltage is sourced from DC Adopter) DC Limit for I/O pins: 40 mA, DC Current Limit for 3.3 V pin: 150mA (If input voltage is sourced from USB), Switching B/N Power sources: manual jumper pin Program memory: 32 KB on chip memory Tmega 328 (of which 0.5KB is used by Boot Loader SRAM: 2KB on chip memory of a Tmega 328 EEPROM: 1KB on chip memory of Tmega328 Clock speed: 16 MHz *.Board Dimension: 69mm X 55mm (Board is rectangular	10 NOs 6844 (with 18% GST)	68440 (with 18% GST)	In JSS S& T university syllabus new embedded subjects like Arduino Is introduced hence embedded systems labs are to be upgraded.
3	Sensors	Small possessive buzzer Module 2- colour LED Module Hit sensor module Vibration switch module Photo resister module Key switch module	10 Nos 3,200 (with 18% GST)	32,000 (with 18% GST)	In JSS S& T university syllabus for new subjects like IOT and Smart Sensors Lab sensors are required

		Tilt switch module 3-color full 2-color LED SMD Modules Infrared emission sensor module 3 colour LED Module KY Mercury open optical module Y in Yi 2-color LED Module 3mm Active buzzer module Temperature sensor module Automatic plashing colourful LED Module Sensitive microphone sensor module Temperature and humidity module XY-axis joystick module			
4	PLC	Model: PM554 ABB Make 12 Digital I/P and 10 Digital O/P 1 A P/S, 6 Push button, and 6 Toggle for Simulation, 10 For Simulation All IO's terminated to 4mm Socket Metal Enclosure with one bottle filling module	1Nos 158000 (with 18% GST)	158000 (with 18% GST)	In JSS S& T university syllabus contains subject Automation in process control with Lab. Dept. is having only 2 PLC with bottle filling module, since the class strength is 72, one more module is required.
5	PLC	Model: PM554 ABB Make 12 Digital I/P and 10 Digital O/P 1 A P/S, 6 Push button, and 6 Toggle for Simulation, 10 For Simulation All IO's terminated to 4mm Socket Metal Enclosure with one Elevator module	1Nos 158000 (with 18% GST)	158000 (with 18% GST))	In JSS S& T university syllabus contains subject Automation in process control with Lab. Dept. is having only 2 PLC with Elevator module, since the class strength is 72, one more module is required.
6	6 89C51 Flashboard ED 2 Kits with PS	89C51 Flashboard ED 2 Kits with PS and keyboard and LCD module	5Nos 6,900 (with 18% GSD)	34,500 (with 18% GSD)	In JSS S& T university syllabus contains subject 8051 microcontrollers with Lab. Dept. is having only 5 kits, since the class strength is 72, 5 more kits are required.
7	Multi O/P Power Supply	Input Voltage: 230V AC, ±10%, 50Hz, 1 Phase Output Voltage: 0 to 32V, 12V to 15V, 4.50 to 5.50V Output Current 0 to 2A, 0.5A, 5A Line Regulation CV ±0.01% ±2mV ±0.1% ±0.1% Load Regulation CV ±0.01% ±2mV ±0.1% ±0.1% Line Regulation CC ±0.1% ±250µA N.A. N.A. Load Regulation CC ±0.1% ±250µA N.A. N.A. Output Ripple CV 1mV rms 1mV rms 1mV rms Output Ripple CC 0.04% rms N.A. N.A. Remote Sensing N.A. N.A. N.A. Operating Temp. 0 to 50°C 0 to 50°C 0 to 50°C Protection OL/SC (CC type) OL/SC (fold back type) OL/SC (fold back type) O/P OVP N.A. N.A. Crowbar type Indication (LED) CV/CC CV CV	10 Nos 16,000	1,60000	In JSS S& T university syllabus, Labs are integrated with Theory And class strength is 72 10 power supplies are required

		3 Digit DPM V & I Common 3 digit voltmeter with sel. switch Meter Accuracy ±3 counts ±3 counts ±3 counts Input on/off Rocker switch Rocker switch Rocker switch Single Turn Pots Coarse & fine to set V & I V set V set Dimensions apprx. 430 × 133 × 250 W × H × D (mm) Weight apprx. 12.0kg.			
8	Dual Channel Cathode Ray Oscilloscope	DC - 30MHz Bandwidth 1mV/div Sensitivity on Both Channels CH1, CH2 (Independent Channels), CH1 & CH2 (Alternate / CHOP), CH2 INVT, ADD and SUBTRACT X-Y Operation 40ns/div to 0.2s/div Time Base 140mm Rectangular CRT with Internal Graticule Triggering to 40MHz Z Modulation (TTL Level) 8 x 10 cm. Display TV Triggering Frame (V) & Line (H) MAINS Trigger Variable Hold Off Built-in Component Tester / Comparator	10 Nos 19.500	1,95000	In JSS S& T university syllabus, Labs are integrated with Theory And class strength is 72 10 CRO's are required
9	Function Generator	Frequency Range: 0.01Hz to 1MHz in 8 decade ranges. Frequency Indication ±1% ±1 digit. Output Impedance 50 ohms Frequency Indication Accuracy ±1% +1 digit Output Waveforms Sinusoidal, Triangle, Square, Ramp, Pulse, TTL (Sync) & DC Outputs. Sine Distortion <1% (typical). Square Wave Rise / Fall Time <75nsec. Frequency Stability <0.5% of the set frequency (after ½ Hour warm up). Duty Cycle 10% to 90% variable. Maximum Output Voltage Into 50 ohms 10V p-p output. Open Circuit 20V p-p output. Amplitude Indication 3 digit seven segment display (Vp-p) ±5%. Amplitude Flatness ±0.5dB up to 100KHz range / ±1.0dB for 1MHz range. Attenuator Two step attenuators of 20dB & 40dB. Fine attenuation of 20dB through vernier control. (Total 80 dB attenuation). Attenuator Accuracy ±0.5dB per 20dB at 1KHz. DC Offset ±10V ±5% (DC + AC peak) in open circuit ±5V ±5% (DC + AC peak) in 50 ohms. POWER REQUIREMENT AC Mains Power 230V AC ±10%, 50Hz., 15VA. (Approx.) GENERAL	10 Nos 10,000	1,00000	In JSS S& T university syllabus, Labs are integrated with Theory And class strength is 72 10 Function generators are required

		Dimensions (mm) 270 (W) x 88 (H) x 310 (D) w/o packing / 325 (W) x 153 (H) x 380 (D) with packing. Weight (approx.) 3 Kg. w/o packing / 4 Kg. with packing. Standard Accessories Instruction Manual 1 No. BNC(M) to Alligator Clip 1 No. Mains Cord 1 No. Optional Accessory 50 ohms Termination.			
10	Digital IC Trainer Kits	16 Pin Zip Socket – 4 no's, 28 Pin Zip Socket 1 no, & 8 Pin IC Base - 1 no's Logic input and Output : 10 no's, BCD to Decimal- 1 no, Clock Pulses 1KHz to 1 MHz & 4mm Connectors	10 Nos 10,000	1,00000	In JSS S& T university syllabus, Labs are integrated with Theory And class strength is 72 10 Digital IC Trainer kits are required
11	Biomedical Simulators Includes : EEG,ECG and EMG Simulator	ECG SIMULATOR The ECG simulator generates single lead (I) ECG waveform, Provision to vary the heart rate; it has an oscilloscope output for measuring the heart rate parameters. Specification: Input power supply: 230V AC Supply, 50Hz Heart rate generator: Variable, 50BPM to 130BPM. EEG SIMULATOR 230V mains A.C. Operated Individual Component of Delta, Theta, alpha, Beta Adjustable in terms of Frequency and amplitude Separate individual component can be adjusted and viewed Combined Output of 1V p-p EMG SIMULATOR The EMG simulator generates EMG Signals, Output compatible with DSO Input power: 230V AC mains supply Frequency knob: to vary frequency Amplitude knob: to vary amplitude Enclosure : ABS	01 Set 55000	55000	In JSS S& T university syllabus, Biomedical Instrumentatisubject is introduced with Lab , hence EEG,ECG and EMG Simulator are required

Sl. No.	Name of Equipment/ Learning Resource	Detailed specification	Quantity and unit price (Estimated)	Total cost in Rs.	Justification for Procurement
Department of Environmental Engineering					
1	COD DIGESOR with Vials (300 Numbers)	Holes 24 or 30 for cell tests dia. 16 mm Temperature selection Room Temperature - 170°C ± 1 digit Timer 0 – 180 min freely selectable. Heating time 8 temperature heating time programmes for simplest possible operation: 148°C (20 min or 120 min), 150°C (120 min), 120°C (30 min, 60 min or 120 min), 100°C (30 + 60 min), as well as eight freely selectable programs, automatic power switch-off at the end of the heating time. **Read out:** 4 digital LED of set temperature, set time, process temperature, residual time display. **Timer:** 1~999 minutes with audible alarm and automatic shutoff or continuous operation. **Accuracy:** ±2°C (at 150°C) **Temperature rang:** Fixed 150°C (COD program) 60°C - 200°C, adjustable. **Housing structure:** stainless steel with powder paint coating **Block structure:** Anodized aluminum **Power:** AC 110V, 60 Hz (AC 220V, 50 Hz), 220 Watt **Safety:** Hot top indicator (flashing when block temperature is over 70°C) Automatic shutoff when block temperature is over 210°C **Block capacity:** 25 x 16 mm sample vials, optional block (8 x 20 mm + 6 x 25 mm vial) is available.	**6 Nos. x 50,000/-**	**3,00,000/**	COD digester is required to use for most of our UG and PG Project work, Ph.D. work, R&D project to analyse COD of Municipal and Industrial wastewater. For our routine UG laboratory to Meet COs in the course EV 68L and in M.Tech 2nd semester students are need to use the COD digester.
2	TURBIDITY METER	Range: 0 – 10,000 NTU Principle of operation: Nephelometric Ratio (Color Correction): full time ON or OFFAccuracy: ± 2 % of reading plus 0.01 NTU (0 to 1000 NTU) ± 5 % of reading (1000 to 4000 NTU), ± 10 % of reading (4000 to 10,000 NTU) Resolution: 0.0001 NTU on Lowest Range Response time: less than 6 seconds, Sample size: 30 ml Light source: Quick connect infrared, Operation temperature: 0 - 50 Air purge: connection for external dry air supply. Outputs: RS-232 Series port	2 Nos. x Rs.15,000/-	30,000/-	Turbidity meter is required to use in the departmental consultancy work, routine UG & PG laboratory and project work to analyse water and wastewater.
3	DIGITAL CONDUCTIVITY METER	Readout – 6" analog 3 ½ digital LCD Range: 0.2 – 20,000 micromhos Steps: 0 – 2, 0 – 20, 0 – 200, 0 – 2000, Accuracy: ± 2 % of full scale Resolution: 1 % of full scale 0.1% of full scale,Temp. compensation: automatic 0 - 50°C,Probe: dip style,Size: Bench: 5" H x 8"W x 5"D,Field: 4" H x 12"W x 8"D Weight,Bench: 3 lbs (1.4 kg) Field: 4 lbs (1.8 kg),Power Bench: 8AA batteries or optional wall AC adaptor Field: 8AA Batteries Battery life: 170 hours	2 Nos. x Rs.15,000/-	30,000/-	Conductivity meter is needed to analyse river water, Groundwater and in wastewater treatment (Electrochemical treatment, membrane filtration process etc). It is required to use in consultancy work to analyse the water and wastewater.

Sl. No.	Name of Equipment/ Learning Resource	Detailed specification	Quantity and unit price (Estimated)	Total cost in Rs.	Justification for Procurement
4	BOD INCUBATOR	**Internal size cms:** 55 x 85 x 55 (LXWXH) **Shelves:** 2 **Temperature range**: + 5°C to 70°C **Controller accuracy:** ± 5°C of set valve for temperature **Uniformity:** ± 1° throughout chamber Air heater element: special type S.S, tubular air heaters with fins. Heat up time: 30 min up to 60 without loadCool down time: 40 min upto +5 without load,**Cooler:** plate fin cooler **Compressor;**EMMERSON hermretically sealed brand **Controller:** Digital display electronic controller **Sensor:** Pt – 100 Internal chamber: Stainless steel 304 grade **External:** Mild steel powder coated Inner acrylic door: inner full size see through acrylic 8 mm thick Air circulation: motorized blower from back and forced air circulation for temperature homogeneity. **Safety device:** adjustable hydraulic over – temperature limiter protector. **PID control:** microprocessor based PID controller. **Computer interface:** RS 485 / RS232 interface for multiple and single communication port. **Cycli timer:** 0 – 24 hrs x 7 days cyclic ON / OFF timer for illuminating port. Should have self-supported transparent doors inside and magnetic gasket outer doors. Should have PUF installation. Should have door operated illumination lamp to work on 220/230 VAC. Should have circular chart recorder for recording test conditions. Should be supplied with stabilizer of sufficient capacity.	2 Nos. x Rs. 60,000/-	1,20,000/-	BOD Incubator is a basic instrument used to determine the organic content present in waste water, which helps in designing the wastewater treatment units. It is required to use in UG & PG routine laboratory, project work, Ph.D. Research work, R&D and Consultancy Work.

5	MAGNETIC STIRRER WITH HOT PLATE	2 liter capacity	4 Nos. x 20,000/-	80,000/-	Magnetic stirrer is required to use in the coagulation process of water treatment. Most of the research and development work, Ph.D. work and P.G project work need to use the magnetic stirrer.
6	AUTOCLAVE	Vertical steam auto clave Capacity: 150 L Dimension: 500mm x 600 mm Temperature: 0 - 200°C Time: various options Display: LED Options: auto off, sensor	1 No. x 1,50,000/-	1,50,000/-	Most of the consultancy, R&D and Ph.D. work UG & PG project work as well as for routine UG & PG laboratory it is required to use the autoclave.
7	DC POWER SUPPLY	SPECIFICATIONS **Metering:** 3 digit DPMs for voltage and current measurement. **Meter Accuracy:** ± counts. Constant Voltage mode: **REGULATIONS:** **Line:** ±0.01% ±2mV for ±10% change in line voltage. Load: ±0.01% ± 2m±mV for load change from Zero to full load. **RIPPLE AND NOISE**: 1mV rms max. 20Hz to 20 MHz. **Constant current Mode:** **REGULATION:** **Line:** ±0.05 % ±10 mA for ± 10% change in line voltage. **Load:** ±0.05 % ±10 mA for change in output voltage from 0volts to maximum output voltage. **RIPPLE AND NOISE:** See Table **MODE Indication:** LED indication for constant voltage / constant current operation mode. **Output Polarity:** Floating w.r.t ground. **Overload protection:** constant current type. **Transient Response:** 100microsec within 10mV of set output voltage for load change from 10% to 90%. Stability: total drift within 8 hours after 30 minutes warm-up under constant line, load and temperature. < ±0.2% ±10mV in CV mode. < ±0.5% ± 10mA in current mode. **Operating Temperature:** 0 to 500c. **Temp. Coefficient:** 0 to ± 0.05 % ±5 m± per OC after initial warmup of 30 minutes in voltages mode. Line Voltage: 230 V AC ± 10 %, Single phase 50Hz	2 Nos. X 50,000/-	1,00,000/-	At present we don't have DC POWER SUPPLY. Five faculty member are regularly need to use the DC power supply to treat the wastewater by electro-coagulation method, electrochemical method and power generation from high strength wastewater.

8	FINE PARTICULATE MATTER SAMPLER FOR ANALYSIS OF $PM_{2.5}$& PM_{10} AT A SAME TIME.	Low Noise Operations. Brushless Blower. Controlled Flow. SPM of particles size less than 100 microns. RSPM of particles size less than 10 and 2.5 microns. **Flow Rate** – 0.7-1.8 m3/min. **Collection substrate:** Glass fiber filter 8 * 12 inches. **Voltage required**: 220v/50hz. Suspended particles in the air are sampled at constant rate of 0.9 to 1.3m3/ min through the inlet of cyclone. By virtue of their momentum, particles greater than 10 microns are carried vertically upwards by the air flow and collected on a filter paper of 8 * 10 inch.	1 No. x 2,50,000/-	2,50,000/-	Fine particulate matter sampler is required to use for our routine UG and PG laboratory work which is related to the subject "Atmospheric Environmental Engineering" EV-710 in 7th semester. B.E and in 2nd sem M.Tech (ENV ENGG) and HS&WE. We need to use fine particulate matter to our PG and UG project work, Research and Consultancy in out Department.
Department of Construction Technology and Management					
Learning Resources					
1	Geo Studio Universal 2018 Software License	includes licenses, SLOPE/WSEEP/W SIGMA/WQUAKE/W TEMP/WCTRAN/W AIR/W	01 no. x 11,55,000.00 + GST @ 18%	13,62,900.00	The software can be used for Research activities of PG and UG students. Can be used for Academic works. Software can be used to study the problems related to Slope stability, Seepage problems, Stress analysis, Earthquake analysis and temperature gradient problems.
Equipment					
1	Hand held Thermal Camera	Temperature Range:-25 to 380 degree C Temperature Accuracy: +/-1.5% Type of Product : Spot Thermal Camera Spot Ratio : 24:1	01 no. x 34,200.00 + GST @ 18%	40,356.00	• Used for Heat and Stress distribution, failure patterns in structural elements. • Used for detecting leakages in pipes through images. • Can be used for Consultancy works. • Can be used for Research Academic works.
2	Compression Testing Machine	Capacity: 50 Tonne Moterized with load cell for load measurement Test Piece Dimension: 200 X 200 X 200 mm Including Hydraulic Power Pack Piston stroke: 50/100 mm Hydraulic pump rated pressure: 40 Mpa Piston diameter: 250/310 mm Motor Power: 0.77/1.1 KW	01 no. x 2,40,000.00 + GST @ 18%	2,83,200.00	Used for Academic works. Used for Consultancy works. Used for Project and Research activities.

	Pan Mixer	Capacity- 100kg / Batch Motor- 2 H.P. Drum Speed: 40 RPM Drum Size:- 760mm dia x 350 mm height, Weight: 525 Kgs	01 no. x 66,000.00 + GST @ 18%	77,880.00	Used for Academic works.Used for Consultancy works. Used for Project and Research activities.
4	Schmidt Rebound Hammer Analog	Type: 10 - 70 MPa 4,450 - 10,153 ps	01 no. x 94,000.00 + GST @ 18%	1,10,920.00	Used for Academic works. Used for Consultancy works. Used for Project and Research activities.
5	Pundit - Non Destructi ve testing device	Consisting of: Pundit Touch screen, 2 transducers (54kHz), BNC adapter cable, 2 BNC cables 1.5m, couplant, calibration rod, battery charger, USB cable DVD with software Documentation Carrying strap and carrying case.	01 no. x 6,18,000.00 GST @ 18%	7,29,240.00	Used for structural element characteristics. Used for Academic works. Used for Consultancy works. Used for Research activities.
6	Loading Frame with instrum-entation	Loading Frame: Size: 2100 mm X 2100 mm X 3000 mm Work Piece Dimension: 2000 mm X 2000mm X 1000mm Tonnage: 25 Tonne Fully Motorized	01 no. x 9,98,000.00	17,58,2hhhhhh hhhhhhhhhhig hggfdsa 00.00	Used for conducting high end loading test on structural elements subjected to impact and static loads. Used for Academic works. Used for Consultancy works. Used for Research activities.
		Impact Setup Attachment: Provision for Drop Impact Setup with existing frame Weight Capacity: 600 Kg Height: 3 meters Weight:600 Kg in steps of 2x 200 kg, 1 x 100 Kg, 2 x 50 kg Fabricated out of Mild Steel Replaceable impact Tip to simulate different impact condition	01 no. x 2,00,000.00		
		8 channel Data Acquisition system with relevant software for gathering data and analyzing	01 no. x 2,27,000.00		
		Sensors: Includes Load Cells, Displacement Sensors Strain Gauge	01set x 65,000.00		
Department of Library					
1	Bluetooth Scanner	Bluetooth Scanner AS 8520	01	20355.00	Bluetooth scanner are required for the purpose of annual stock verification and day to day circulation. So that circulation works gets faster with flexible.

Two proposals for setting up of new laboratories have been received from department of Information Science and Engineering and Mechanical Engg/ Industrial and production Engineering. The details are as follows:

1. Department of Information Science and Engineering

Name of the proposal: Data science and Machine Learning laboratory

Equipment required: High performance server – 01 No. Rs. 17 Lakhs

: Client Machines 20 Nos. Rs. 10 Lakhs

Total Rs. 27 Lakhs

2. Department of Mechanical Engineering and Department of Industrial and Production Engineering

Name of the proposal: Modernization of Metrology laboratory and CAD/CAM/PLM laboratory

Equipment required:

1. Coordinate Measuring Machine (CMM) 01 No. Rs. 15 Lakhs
   Duramax 5/5/5 LTE, Calypso software, Quality assurance tools and gages
2. Product Design and validation and advance manufacturing lab Rs. 30 Lakhs
3. Computer systems for the laboratory 30 Nos Rs 15 Lakhs

Total	Rs. 60 Lakhs

As discussed in the 1st BoG Sub-Committee Meeting held on 12.02.2018 the importance of smart studio was discussed and it was decided to establish a smart studio in SJCE. A draft proposal has been prepared to establish smart studio in the 1st floor of CS/IS Department (Above IS Seminar hall) Golden Jubilee Bhavan, SJCE Campus. The Smart studio proposed consists of class room recording, streaming, video conferencing and interactive class. The details of equipment are provided below along with estimated cost.

Equipment	Make	Qty
Video		
4200 WUXGA Projector		1
133 Inch Motorised Screen	STD	1
White Board	STD	1
LED Short Throw Projector	CASIO	1
Electro Magnetic IWB, 85 inches single stylus operated	Vio	1
Full HD video conferencing system with 12X HD camera, HDMI input for presentation sharing, Voice Tracking Systems	polycom	1
Ledge for Camera	STD	1
H.264 Recorder Streaming device	Kramer	1
PTZ camera CMOS minimum 16x		1
Total Cost is Rs. 18,00,000.00		
Switching and Table connectivity		
Active Wall plate with HDMI and VGA with AUDIO with Built in Transmitter	Branded	1
Digital Podium	Aha Simpo	
12 channel presentation switcher/scaler	Branded	1
Collaboration Software plus hardware, with student screen sharing	Branded	1
Desktop Document Camera, 16x CMOS, LCD Display	ELMO	1
4K60 4:2:0 HDMI HDCP 2.2 Transmitter with RS–232 & IR over Extended–Reach HD BaseT	Branded	2
15.6″, widescreen LCD with Wacom's patented, cordless, battery-free pen technology. It can be utilized for drawing diagrams, making annotations, signing documents, completing forms, and capturing handwritten notes.	Wacom	1
4K60 4:2:0 HDMI HDCP 2.2 Transmitter with RS–232 & IR over Extended–Reach HD BaseT	Branded	1
Total Cost is Rs. 15,00,000.00		
Audio		
Ceiling Microphone	Beyerdynamic/ Sennheiser	5
SITC of wireless Head microphone for rear seats	Beyerdynamic/ Sennheiser	1
SITC of audio DSP with min12 Input 8 Ouput AEC inputs,	BSS/clearone	1
Speakers Wallmount 60 W		2
Power Amplifier (1x240W @70V/100V & 2x120W @8Ω)	Kramer/BOSE	1
Total Cost is Rs. 12,00,000.00		

Control System		
32 Port Master Controller can operate over Ethernet with control interfaces that include: eight bidirectional RS−232, eight IR, eight GPI/O, and eight relays. It controls devices such as scalers, video displays, audio amplifiers, Blu−ray players, sensors, screens, shades, door locks, and lights	Kramer	1
SITC of 10 INCH IPad for wireless Control App for Ipad	IPAD	1
Wifi Access POINT	CISCO	1
4 ZONE Lighting Controller	Dynalite/Lutron	1
Button Panel for Controlling	Kramer	1
8 PORT Low Voltage Relay Controller		1
LOW Voltage to High Voltage Converter	Creative	1
Docking station & Control App for Ipad	STD	1
Total Cost is Rs. 4,50,000.00		

Equipment	Make	Qty
Networking voice and Access control		
Network Switchers, Routers, Wifi, Voice points, Wall plates, Accescontrol, Equipment rack		Set
Cables, Patch chords and accessories		Set
Cabling, Conduiting, terminations, testing and commissioning		Set
Total Cost is Rs. 1,80,000.00		
Cables, connector and Miscellaneous		
SITC of 15ft long Flexible High Speed HDMI Cables, 4K support	Kramer	1
SITC of 15ft Male to Male VGA and Audio Cables - Molded Connectors	Kramer	1
SITC of 25ft long Flexible High Speed HDMI Cables, 4K support	Kramer	5
SITC of 35ft long Flexible High Speed HDMI Cables, 4K support	Kramer	4
SITC of Shielded foiled Twisted pair cable, 24 AWG, 450 MHZ or more bandwidth	Kramer	2
Shielded RJ-45 Plug Kit	Kramer	30
Speaker Cable 1.5 sq mm	Kramer	100
Audio Cable	Kramer	50
Microphone cable	Kramer	50
Other cables & connectors- Microphone, speaker, control cables	Kramer	1
Total Cost is Rs. 2,50,000.00		
Installation, testing & Commissioning	SI	1
Programming Charges	SI	1
Designing Charges	SI	1
Training Charges	SI	1
Total Cost is Rs. 3,50,000.00		
Grand Total Rs. 57,30,000.00		

Details are provided in annexure -1

Details of procurement along with estimated cost is presented in the following table

Sl. No.	Department	Equipments/ Learning Resources	Amount
1.	ECE, IT, CS, E&EE, IS, Civil, Env. Engg., Library	Computers – 345 nos. @ Rs. 50,000/- per system	172,50,000.00
		Server – 01 no. @ Rs. 1,25,000.00	1,25,000.00
2.	E&EE, IT, CS	Multimedia Projectors – 06 nos. @ Rs, 70,000/- per no.	4,20,000.00
3.	ECE	Learning Resources	14,90,600.00
		Equipment	14,16,500.00
4.	IT	Equipment	11,98,440.00
5.	Env. Engg.	Equipment	10,60,000.00
6.	CTM	Learning Resources	13,62,900.00
		Equipment	29,99,796.00
7.	Library	Equipment	20,355.00
8.	ISE – New Lab	Equipment	27,00,000.00
9.	Mech – New Lab	Equipment	60,00,000.00
10.	Smart Studio	Equipment	57,30,000.00
TOTAL			417,73,591.00

Recommendation:

Executive Secretary, Vice chancellor and the Principal sought the details of available computers along with configuration and working condition from HoD of each department. HoDs provided the details of existing computer which were procured during TEQIP-I and TEQIP-II and informed the committee that the computers purchased during TEQIP-I cannot be used and requires replacement. The committee members sought the details from the HoDs regarding usage pattern of new computers for which the HoDs gave justification. Hence, the committee members approved to procure 345 Numbers of Desktop computers with a common configuration acceptable to all the departments. The computers will be procured at institution level through national competitive bidding. The committee also approved to procure a server for Department of Electrical and Electronics Engg.

The committee approved to procure projectors for the Departments of IT, E&EE, CS&E and Env. Engg with common configuration acceptable to the departments

The committee approved to procure two learning resources (software) for Department of Electronics and Communication Engg after obtaining details such as: No. of Licence, Computer requirement to use the software, perpetual licence, cost for renewal and upgradation, usage in curriculum, usage by M.Tech and Ph.D scholars etc,

The committee approved to procure the instruments for Departments of Electronics and Communication Engg, Instrumentation Technology, Environmental Engg and Library and Information centre (Equipment list provided in S3.3.1.3) after detailed discussion with the concerned head of the department.

Procurement of learning resources and equipment for department of Construction Technology and Management was deferred (Equipments list provided in S3.3.1.3) due to available of few equipments in Civil department. The committee has sought the details of similar equipments in Civil department and its usage by civil Engg students.

A proposal for establishing Data Science and Machine Learning Laboratory by Department of Information Science Engg was approved. The committee reduced the no. of client machines from 20 Nos to 10 Nos and approved to procure one high performance server.

The proposal from Departments of Mechanical Engg and Industrial and Production Engg for modernisation of metrology laboratory and CAD/CAM/PLM laboratory was deferred and the decision for establishing laboratory will be taken after the committee visit to the departments laboratories.

The committee was appraised on the components of smart studio to be established at SJCE. Executive Secretary sought the details of space available and the Principal suggested the place as seminar hall in the first floor of CS/IS block. After visiting the seminar hall in the first floor of CS/IS Seminar hall a decision will be taken in this regard.

Approved

S3.3.2 Head: Academic Processes

S3.3.2.1 Improve Student Learning

(Activities include: IIT/ NIT training to students at IIT/NIT or in parent institute; Induction Training; GATE Preparation Classes; Career Counseling, Student Counseling; Psychometric/ Diagnostic Test; Remedial Classes; Peer Learning; Student Visits to IIT & R&D organizations; GATE Registration Fee (only for final year students); Institutional memberships for professional societies eg, IEEE, ACM, IETE, CSI, Automotive Engineering, ISTE, IE(I), ASCE, ASME, for student chapters; Sponsorship of 20% on academic activities in Tech Fest; Registration Fees and TA/DA for students participating in Tech Fest of IIT/NIT; GATE Orientation Programme, etc.)

SJCE has received list of empaneled service provider for GATE training from NPIU for hiring the services of firms. The TEQIP coordinator mentioned that quotation shall be enlisted from the empaneled list and order shall be placed

Copy of NPIU email is provided in **Annexure -2**

Consideration and approval.

S3.3.2.2 Graduates employability

(*Activities include: Start up activity; Soft Skill training (Industry Readiness); Finishing Schools, etc.)*

SJCE has received a list of empaneled service provider for Employability skills training from NPIU. As per AICTE mandate institutions are supposed to provide managerial, communication, Team working, leadership and entrepreneurial skills. For this competent and professional service providers from the empaneled list can be utilized for employability skills training.

Copy of NPIU email is provided in **Annexure -3**

Consideration and approval.

S3.3.2.3 Faculty/Staff Development and motivation

(Activities include: Short Term Training Programmes (STTP) in house; Registration fee and TA/DA for STTP in other reputed institutes; IIT training to faculty at IIT or in parent institute; Attending Conferences/ Seminars/Workshops; Qualification Up gradation; Support Staff training, etc.)

Proposals have been received from faculty and staff members of different departments for permission to attend the training programmes/symposia/workshops/conferences as well as to present technical talks.

SL No	Name of the faculty & Dept	Date	Title of Training	Venue	Estimated Amount in Rs
1	S Maheshan IS&E	14.07.2018 To 28.07.2018	Advances in Deep Architectures for Signal, Image and Vision applications	IIIT, Allahabad	31800.00
2	Manju N IS&E	14.07.2018 To 28.07.2018			36000.00
3	C.K. Roopa IS&E	14.07.2018 To 28.07.2018	Advances in Deep Architectures for Signal, Image and Vision applications	IIIT, Allahabad	36000.00

Details are provided in Annexure – 4

Recommendation:

Committee approved to send the above mentioned three faculties for the training programme to be held at IIIT, Allahabad.

Approved

S3.3.2.4 Research and Development

(Activities include: Attending Conferences/ Seminars/ Workshops for UG/PG/Ph.D students within or outside institute; Spares and consumables for UG/ PG student research projects Seed Money for R & D for faculty research projects; Publication in peer reviewed journals having citation & impact factor and scopus index; Fees for patent filing for faculty and students, etc.)

Vishishtta Nagaraj, Research scholar from department of Environmental Engg has made request to grant the expenses to present research paper entitled "Removal of Nitrate and Hardness from Synthetic Water using Chitosan as an absorbent" in the international conference on "Innovative Research in Engineering, Science, Management and Humanities" held at IEI, Hyderabad on 18th March 2018. The estimated cost is Rs. 6000/-.

Arpita Swamy, Research Scholar from Department of Computer Science and Engineering has made request to grant the expenses to present research paper in the IEEE international conference on ICNTET to be held at GRT Institute of Engineering and Technology, Chennai, Tamil Nadu on 7th and 8th September 2018. The estimated cost is Rs. 8500/-.

Recommendation:

Committee approved to send the above mentioned research scholars for the respective international conferences.

Approved

S3.3.2.5 Industry-Institute Interaction

(Activities include: Internships; Industry expert lectures; Placement Activities & Hospitality; Industry Visits, etc.)

SI No	Event Name	Dates	Department	Coordinator Name	Budgeted amount in Rs
1	2nd year M. Tech (Industrial Structures of Civil Engg. Industrial visit to Idukki Dam at Kerala	16.04.2018 To 19.04.2018	Civil	Dr. S.K. Prasad	49700.00

Recommendation:

The Committee approved the industrial visit under taken by M.Tech industrial structures students

Approved

S3.3.2.6 Any other subject

The E- journals package for Library and Information Centre was approved in the 1st BoG sub-committee meeting held on 12.02.2018. Principal suggested that the renewal of E-journals can be done for one and half year (18 months) instead of six months. The committee informed the librarian to obtain new invoice for 18 months and proceed for renewal process.

Approved

Dr. B. Manoj Kumar
(TEQIP III Coordinator)

Dr. T.N. Nagabhushan
(Principal)