CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A), HYDERABAD-75 Department of Electrical and Electronics Engineering

Procurement of Special Electrical Machines Financial Bid. (Ref. No: <u>EEE/SEM-2019-20/103</u>)

Control of 3-Ф iction motor ent pole 3-Ф Sync. erator	 2 HP / 415 V / 3 Phase / TEFC / IE2 Eff. Class / Sq. Cage Induction Motor with Mechanical loading arrangement having round dial scales and friction belt for torque measurement 2 Ft. Heighted elevated base with anti-vibration pad if required Control panel consisting TPM MCB, with Industrial VFD Drive, AC Voltmeter, AC Ammeter and required indicators. 5 HP / 220 V / 1500 RPM / Shunt Wound DC Motor coupled to 3 KVA / 415 V / 3 Phase / 1500 RPM / 50 Hz. / Four Pole / Rotor Wound / Stator Excited / Separately excited / Manually Regulated Salient Pole Alternator with base and couplings 2 Ft. Heighted elevated base with anti-vibration pad if required Control Panel consisting following components. DC MCB 1 no., 3 point Starter 1 no., 25 A DC Ammeter 1 no., 200 V DC Voltmeter 1 no., Field Rheostat for motor field control 1 no. (External), 5 A AC Ammeter 1 no., 20 A DC Ammeter 1 no., 500 V AC Voltmeter 1 no., 2 A Separate excitation unit for Alternator 1 no., other required indicators & terminals. 3 Phase / 415 V / 5 A / wire wound / resistive load bank controlled by rotary switches in about 6 steps. Cont. variable / 415 V / 5 A / 50 Hz. / Capacitive load bank controlled by rotary switches in about 5 to 6 steps. 	
ent pole 3-Φ Sync.	 Control panel consisting TPM MCB, with Industrial VFD Drive, AC Voltmeter, AC Ammeter and required indicators. 5 HP / 220 V / 1500 RPM / Shunt Wound DC Motor coupled to 3 KVA / 415 V / 3 Phase / 1500 RPM / 50 Hz. / Four Pole / Rotor Wound / Stator Excited / Separately excited / Manually Regulated Salient Pole Alternator with base and couplings 2 Ft. Heighted elevated base with anti-vibration pad if required Control Panel consisting following components. DC MCB 1 no., 3 point Starter 1 no., 25 A DC Ammeter 1 no., 2A DC Ammeter 1 no., 300 V DC Voltmeter 1 no., Field Rheostat for motor field control 1 no. (External), 5 A AC Ammeter 1 no., 2 A DC Ammeter 1 no., 500 V AC Voltmeter 1 no., 2 A Separate excitation unit for Alternator 1 no., other required indicators & terminals. 3 Phase / 415 V / 5 A / wire wound / resistive load bank controlled by rotary switches in about 6 steps. Cont. variable / 415 V / 5 A / 50 Hz. / 3 Phase / Inductive Load (for lagging PF Loading) 3 Phase / 415 V / 5 A / 50 Hz. / Capacitive load bank controlled by rotary switches in about 5 to 6 steps. 	
	 required indicators. 5 HP / 220 V / 1500 RPM / Shunt Wound DC Motor coupled to 3 KVA / 415 V / 3 Phase / 1500 RPM / 50 Hz. / Four Pole / Rotor Wound / Stator Excited / Separately excited / Manually Regulated Salient Pole Alternator with base and couplings 2 Ft. Heighted elevated base with anti-vibration pad if required Control Panel consisting following components. DC MCB 1 no., 3 point Starter 1 no., 25 A DC Ammeter 1 no., 2A DC Ammeter 1 no., 300 V DC Voltmeter 1 no., Field Rheostat for motor field control 1 no. (External), 5 A AC Ammeter 1 no., 2 A DC Ammeter 1 no., 500 V AC Voltmeter 1 no., 2 A Separate excitation unit for Alternator 1 no., other required indicators & terminals. 3 Phase / 415 V / 5 A / wire wound / resistive load bank controlled by rotary switches in about 6 steps. Cont. variable / 415 V / 5 A / 50 Hz. / 3 Phase / Inductive Load (for lagging PF Loading) 3 Phase / 415 V / 5 A / 50 Hz. / Capacitive load bank controlled by rotary switches in about 5 to 6 steps. 	
	 50 Hz. / Four Pole / Rotor Wound / Stator Excited / Separately excited / Manually Regulated Salient Pole Alternator with base and couplings 2 Ft. Heighted elevated base with anti-vibration pad if required Control Panel consisting following components. DC MCB 1 no., 3 point Starter 1 no., 25 A DC Ammeter 1 no., 2A DC Ammeter 1 no., 300 V DC Voltmeter 1 no., Field Rheostat for motor field control 1 no. (External), 5 A AC Ammeter 1 no., 2 A DC Ammeter 1 no., 500 V AC Voltmeter 1 no., 2 A Separate excitation unit for Alternator 1 no., other required indicators & terminals. 3 Phase / 415 V / 5 A / wire wound / resistive load bank controlled by rotary switches in about 6 steps. Cont. variable / 415 V / 5 A / 50 Hz. / 3 Phase / Inductive Load (for lagging PF Loading) 3 Phase / 415 V / 5 A / 50 Hz. / Capacitive load bank controlled by rotary switches in about 5 to 6 steps. 	
	Control Panel consisting following components. DC MCB 1 no., 3 point Starter 1 no., 25 A DC Ammeter 1 no., 2A DC Ammeter 1 no., 300 V DC Voltmeter 1 no., Field Rheostat for motor field control 1 no. (External), 5 A AC Ammeter 1 no., 2 A DC Ammeter 1 no., 500 V AC Voltmeter 1 no., 2 A Separate excitation unit for Alternator 1 no., other required indicators & terminals. 3 Phase / 415 V / 5 A / wire wound / resistive load bank controlled by rotary switches in about 6 steps. Cont. variable / 415 V / 4.2 A / 50 Hz. / 3 Phase / Inductive Load (for lagging PF Loading) 3 Phase / 415 V / 5 A / 50 Hz. / Capacitive load bank controlled by rotary switches in about 5 to 6 steps.	
	 Ammeter 1 no., 2A DC Ammeter 1 no., 300 V DC Voltmeter 1 no., Field Rheostat for motor field control 1 no. (External), 5 A AC Ammeter 1 no., 2 A DC Ammeter 1 no., 500 V AC Voltmeter 1 no., 2 A Separate excitation unit for Alternator 1 no., other required indicators & terminals. 3 Phase / 415 V / 5 A / wire wound / resistive load bank controlled by rotary switches in about 6 steps. Cont. variable / 415 V / 4.2 A / 50 Hz. / 3 Phase / Inductive Load (for lagging PF Loading) 3 Phase / 415 V / 5 A / 50 Hz. / Capacitive load bank controlled by rotary switches in about 5 to 6 steps. 	
erator	Cont. variable / 415 V / 4.2 A / 50 Hz. / 3 Phase / Inductive Load (for lagging PF Loading) 3 Phase / 415 V / 5 A / 50 Hz. / Capacitive load bank controlled by rotary switches in about 5 to 6 steps.	
	3 Phase / 415 V / 5 A / 50 Hz. / Capacitive load bank controlled by rotary switches in about 5 to 6 steps.	
	Complete with Charging – discharging Bulb mounting holders (without bulbs. 60 W bulbs to be arranged locally) (for leading PF Loading)	
	Synchronizing Panel for synchronizations of two Alternator set or Alternator with Mains. Consisting of voltmeter – 1 No., Frequency meter– 1 No., lamp Board bank for Lamp Method, Phase Sequence Meter – 1 No., Synchroscope – 1 No, necessary switches, fuses & indicators.	
3 DC Series Motor	1.5 HP / 220 V / 1500 RPM / Duty S2 / DC Series Traction Motor with Mechanical Loading arrangement having Round dial scales and Friction Belt for Torque Measurement. (capable to take load up to 200-250 %)	
Series Motor	2 Ft. Heighted elevated base with anti-vibration pad if required	
	Control Panel consisting DC MCB, 2-point Starter, 2 Nos. DC Ammeter, 1 No. DC Voltmeter, 1 No. Field Diverter (Rheostat type - External) all other indicators & terminals required.	
ble Fed Induction erator	3 HP / 220 V / 1500 RPM / DC Shunt Motor coupled with 3.0 HP / 415 V stator / approx. 210 V rotor / 3 Ph. Slipring Induction Motor as DFIG.	
5 Permanent Magnet Synchronous Motor	1 HP / PMSM Motor with Mechanical loading arrangement having 2 No. round dial scales and friction belt for torque measurement.	
	Control panel consisting TPM MCB, with Industrial VFD Drive, AC Voltmeter, AC Ammeter and required indicators.	
cched Reluctance or	1 HP SRM Motor with Mechanical loading arrangement having 2 No. round dial scales and friction belt for torque measurement. With Elaborate Drive to study with following drives: FPGA Module, IGBT Module.	
	1 HP / 200 V DC / 3000 RPM BLDC Motor with Mechanical loading arrangement having 2 No. round dial agalas and faittion halt for targue measurement. With Eleborate Drive to study with following	
ei na ch	rator anent Magnet aronous Motor hed Reluctance r	rator 3 Ph. Slipring Induction Motor as DFIG. anent Magnet aronous Motor 1 HP / PMSM Motor with Mechanical loading arrangement having 2 No. round dial scales and friction belt for torque measurement. Control panel consisting TPM MCB, with Industrial VFD Drive, AC Voltmeter, AC Ammeter and required indicators. hed Reluctance r 1 HP SRM Motor with Mechanical loading arrangement having 2 No. round dial scales and friction belt for torque measurement. With Elaborate Drive to study with following drives: FPGA Module, IGBT Module.

Note:

- 1. Any other Details of the equipment or deviations if any can be mentioned here.
- 2. The file should be stored with password protection.
- 3. If the technical bid is qualified, the financial bid will be opened after receiving the password from the Vendor.
- 4. ALL E-Tenders to be addressed <u>topurchase@cbit.ac.in</u> with CC to <u>Principal@cbit.ac.in</u>. Hard copies to be addressed to Principal, CBIT(A) HYDERABAD 75

Signature:

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A), HYDERABAD-75 Department of Electrical and Electronics Engineering

Stamp of the Vendor: