

Energy Management Centre - Kerala (Department of Power, Govt of Kerala)

CERTIFICATE OF EMPANELMENT

This is to certify that M/s. Ganesh Technical Consultancy Services (GTCS) (CC No. 56/1675, First floor, NSS Karayogam Building, K P Vallon Road, Kochi - 682 020) is empanelled as Energy Audit firm in Energy Management Centre Kerala to conduct mandatory energy audit as per Government of Kerala G.O (Rt) No.2/2011/PD dated 01.01.2011.

Empanelment No: EMCEEA-3197B-1

Saana/Araa	Building	Industry -Electrical	Industry Thermal
Scope/Area	Yes	No	No

This empanelment is valid up to 01/02/2024

Issuing Date: 17/03/2022

 ${\it Place: Thiruvan} anthapuram$

Director, Energy Management Centre Kerala

		Information	of firm
1.	Name & address of the firm		M/s Ganesh Technical Consultancy Services CC No. 56/1675, First floor, NSS Karayogam Building, K P Vallon Road, Kochi - 682 020
	Office (w	ith STD)	0484 2323505
	Mobile		98461 59505
	Fax numl	per	Nil
2.	Website ((if any)	www.gtcs.in
3.	Email address	mail@gtcs.in	
4.	-	esignation ess of Contact person	Shreeganesh.V.Nair Founder and Chief Consultant
5.	Office (w	ith STD)	0484 2323505
	Residence	e (with STD)	Nil
	Mobile		98460 59505
6.	Email address	waterandenvironme ntgtcs@gmail.com	
7.	Year of e	stablishment	1997
8.	Year of of firm.	commencement of energy audit by the	2014
9.	No. of bra	anch offices	Nil
		implete addresses including heads of all iffices with telephone, fax and emails)	

	Details of Associated Energy Expe	rts and Audits Conducted by firm
1.	Number of resource persons available	8
2.	Number of full-time energy auditors in position, with work experience of all energy auditors associated with the firm	6
3.	No. of part-time energy auditors in position during the current year / previous year associated with the firm.	2
4.	Sectors in which the energy audit firm has conducted energy audits since inception and number of audits in each sector	 Hospital – 2 Shopping Mall – 1 Hotels and Resorts – 5 Residence – 2 Apartments – 2 Total – 12
5.	Energy audit process system (list sectors) - If no energy audit has been carried out of the process system and parameters, please list nil.	NIL
6.	Energy audit of thermal utility system (list sectors)	 Boilers Heat pumps Steam system Waste heat recovery system
7.	Energy audit of electrical utility system (list sectors)	 Electric Motors Compressed air system HVAC &Refrigeration system Fans and Blowers Pumps and Pumping system Coiling Towers Lighting system DG Sets Transformers

8.		(a) Electrical (list the name of the instruments)	 Power Quality Analyzer (KRYKARD ALM 33) Lux Meter (HTC-LX-101 A) Multimeter (FLUKE 106, 600V CAT III) Energy meter (POWERGUARD- PG09) Clamp Multimeter (UNI-T (UT 204) TRUR RMS)
	Instruments available	(b) Thermal (list the name of the instruments)	 Infrared Thermal Imaging Camera – High resolution (FLIR E63900, T 198547) Ultrasonic Flowmeter (ADEPT FLUIDYNE CLAMP ON TYPE –UFM 6720) Flue Gas Analyser (Festo) CO2 Analyzer (Extech 80) TDS Meter (NOCTRONIQUE CB18845) PH Meter (SEMISPHERE PH-02- PENTYPE) Thermometer (Contact / Non-contact) (FLUKE - 59 Max) Hygrometer (Ambient, Acurite) Anemometer (Ambient, Extech) Manometer /Pitot Tube (Swastik, Zoom)

	*Bio data of Certified Energy Auditor				
1	Name of Energy auditor	Sreejith.P.Menon			
2.	Qualifications.	B-Tech Electrical Engineering, P G Diploma in Electrical Energy Management and Energy Auditing, BEE Certified Energy Auditor			
3.	Experience. (use additional sheet if required)	More than 11 years of experience in Consultancy and Project Management in Infrastructures and Building Industry in which 5 years into Energy Audits			
4.	Residence (with STD)	98463 75889			
5.	Mobile	94002 98995			
6	Email spmenon.ee@gmail.co	m			
7	Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) (if not appeared list as nil	20.01.2012 (Energy Auditor)			
8	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"	2011			
9	Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems" (In case of Certified Energy Auditor, please write CEA Registration No.)	1. EA – 11547 2. EA – 11647			
10	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"	1. 8786 2. 6238			
11	Are you a BEE accredited Energy Auditor. If so: Date of accreditation Accreditation No.	No			
	Rem	arks(if any)Nil			

Place: Kochi Date: 24.05.17

Signature:
Name: Sreejith P Menon
Designation: Energy Auditor

		*Bio data of	Consultants	
1	Name of En	ergy auditor	Shreeganesh V Nair	
2.	Qualifications.		B Tech Civil Engg, ECBC Master Trainer, BEE Certified Energy Manager, GRIHA Evaluator& Trainer, EDGE Auditor, IGBC Accredited Professional	
3.	Experience. required)	(use additional sheet if	A complete building Physics Expert with 24 years of experience in design of buildings, services, Infrastructures, factories and industries. Experience in project Management, transaction advisory and Building code formulation. Presently 4 years of experience in Energy Audits. Green Building and Energy Modelling Consultant	
4.	Residence (with STD)	Nil	
5.	Mobile		98460 59505	
6	Email address	waterandenvironmentgtcs	s@gmail.com	
7	Manager or specify) by I	fication as Energy Energy Auditor (pl Bureau of Energy BEE) (if not appeared list	01.06.2016 (Energy Manager)	
8	"Energy Per	sing the examination in formance Assessment ent and Utility Systems"	NA	
9	Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems" (In case of Certified Energy Auditor, please write CEA Registration No.)		1. EA 22755	
10	(i) Energy M (ii) "Energy	Registration Number of lanager Performance Assessment ent and Utility Systems"	1. 3517	
11	Are you a B auditor. If so:	EE accredited Energy	No	

Date: 24.05.17

Place: Kochi

Signature:

Name: Shreeganesh V Nair Designation: Founder & Chief

Consultant

	*Bio data of Consultants				
1	Name of En	ergy auditor	Babu T V		
2.	Qualification	ns.	3 year Diploma in Electrical Engg, Supervisory License Grade – B No.7956/2001/200KVA		
3.	Experience. required)	(use additional sheet if	Over 33 years of experience in Erection and Management of electrical installations, substations and building systems in India and abroad. 2 years into Energy Audits		
4.	Residence (with STD)	0480 2734640		
5.	Mobile		99473 29803		
6	Email address	babutv2004@gmail.com@	@gmail.com		
7	Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) (if not appeared list as nil		Nil		
8	"Energy Per	sing the examination in formance Assessment and Utility Systems"	NA		
9	(i) Energy M (ii) "Energy I for Equipme (In case of	Registration Number of lanager Performance Assessment ent and Utility Systems" Certified Energy Auditor, CEA Registration No.)	NA		
10	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"		NA		
11	auditor. If so: Date	EE accredited Energy of accreditation editation No.	NA		
		Remai	rks(if any)Nil		

*please attach bio data of all consultants of your firm.

I hereby state that information furnished above is true and correct to the best of my knowledge.

Place: Kochi Date: 24.05.17 Signature:

Name: Babu T V

Designation: MEP Technical

Lead

	*Bio data of Consultants				
1	Name of En	ergy auditor	Manoj Kumar M		
2.	Qualifications.		B Tech Electrical Engg,		
3.	Experience required)	. (use additional sheet if	4 years of experience in Energy Audits		
4.	Residence ((with STD)	94951 84497		
5.	Mobile		94477 03796		
6	Email address	kumarmanoj784@gmail.	com		
7	Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) (if not appeared list as nil		Nil		
8	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"		NA		
9	Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems" (In case of Certified Energy Auditor, please write CEA Registration No.)		NA		
10	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"		NA		
11	Are you a BEE accredited Energy Auditor. If so: Date of accreditation Accreditation No.		NA		
	_	Rema	rks(if any)Nil		

Place: Kochi

Date: 24.05.17

Signature:

Name: Manoj Kumar M

Designation: Consultant

	*Bio data of Consultants				
1	Name of En	ergy auditor	Nikhila V S	*	
2.	Qualifications.		B Tech Electrical Engg,		
3.	Experience. (use additional sheet if required)		1 year of experience in Energy Audits.		
4.	Residence ((with STD)	97448 30993		
5.	Mobile		81118 02046		
6	Email address	nikhilavs319@gmail.com			
7	Manager or specify) by I	ification as Energy Energy Auditor (pl Bureau of Energy BEE) (if not appeared list	Nil		
8	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"		NA		
9	Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems" (In case of Certified Energy Auditor, please write CEA Registration No.)		NA		
10	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"		NA		
11	auditor. If so: Date	EE accredited Energy of accreditation editation No.	NA		
		nema	rks(if any)Nil		

Place: Kochi Date: 24.05.17 Signature:

Name: Nikhila V S

Designation:Consultant

		Information	of firm
1.	Name & a	address of the firm	M/s Ganesh Technical Consultancy Services 38/324, First Floor, Pulikkal Building, Near South Over bridge, Karshaka Road, Kochi – 682 016
	Office (w	ith STD)	0484 2323505
	Mobile		98461 59505
	Fax numb	per	Nil
2.	Website ((if any)	www.gtcs.in
3.	Email address	mail@gtcs.in	
4.	Name, De	esignation ess of Contact person	Shreeganesh.V.Nair Founder and Chief Consultant
5.	Office (wi	ith STD)	0484 2323505
	Residence	e (with STD)	Nil
	Mobile		98460 59505
6.	Email address	waterandenvironme ntgtcs@gmail.com	
7.	Year of es	stablishment	1997
8.	Year of of firm.	commencement of energy audit by the	2014
9.	No. of bra	unch offices	Nil
		implete addresses including heads of all iffices with telephone, fax and email is)	

	Details of Associated Energy Expe	rts and Audits Conducted by firm
1.	Number of resource persons available	8
2.	Number of full-time energy auditors in position, with work experience of all energy auditors associated with the firm	6
3.	No. of part-time energy auditors in position during the current year / previous year associated with the firm.	2
4.	Sectors in which the energy audit firm has conducted energy audits since inception and number of audits in each sector	 Hospital – 2 Shopping Mall – 1 Hotels and Resorts – 5 Residence – 2 Apartments – 2 Total – 12
5.	Energy audit process system (list sectors) - If no energy audit has been carried out of the process system and parameters, please list nil.	NIL
6.	Energy audit of thermal utility system (list sectors)	 Boilers Heat pumps Steam system Waste heat recovery system
7.	Energy audit of electrical utility system (list sectors)	 Electric Motors Compressed air system HVAC &Refrigeration system Fans and Blowers Pumps and Pumping system Coiling Towers Lighting system DG Sets Transformers

8.		(a) Electrical (list the name of the instruments)	 Power Quality Analyzer (KRYKARD ALM 33) Lux Meter (HTC-LX-101 A) Multimeter (FLUKE 106, 600V CAT III) Energy meter (POWERGUARD- PG09) Clamp Multimeter (UNI-T (UT 204) TRUR RMS)
	Instruments available	(b) Thermal (list the name of the instruments)	 Infrared Thermal Imaging Camera – High resolution (FLIR E63900, T 198547) Ultrasonic Flowmeter (ADEPT FLUIDYNE CLAMP ON TYPE –UFM 6720) Flue Gas Analyser (Festo) CO2 Analyzer (Extech 80) TDS Meter (NOCTRONIQUE CB18845) PH Meter (SEMISPHERE PH-02- PENTYPE) Thermometer (Contact / Non-contact) (FLUKE - 59 Max) Hygrometer (Ambient, Acurite) Anemometer (Ambient, Extech) Manometer /Pitot Tube (Swastik, Zoom)

*Bio data of Certified Energy Auditor					
1	Name of Energy auditor	Sreejith.P.Menon			
2.	Qualifications.	B-Tech Electrical Engineering, P G Diploma in Electrical Energy Management and Energy Auditing, BEE Certified Energy Auditor			
3.	Experience. (use additional sheet if required)	More than 11 years of experience in Consultancy and Project Management in Infrastructures and Building Industry in which 5 years into Energy Audits			
4.	Residence (with STD)	98463 75889			
5.	Mobile	94002 98995			
6	Email spmenon.ee@gmail.com address				
7	Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) (if not appeared list as nil	20.01.2012 (Energy Auditor)			
8	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"	2011			
9	Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems" (In case of Certified Energy Auditor, please write CEA Registration No.)	1. EA – 11547 2. EA – 11647			
10	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"	1. 8786 2. 6238			
11	Are you a BEE accredited Energy Auditor. If so: Date of accreditation Accreditation No.	No			
	Remarks(if any)Nil				

Place: Kochi Date: 24.05.17

Signature:
Name: Sreejith P Menon
Designation: Energy Auditor

*Bio data of Consultants				
1	Name of Energy auditor		Shreeganesh V Nair	
2.	Qualification	ns.	B Tech Civil Engg, ECBC Master Trainer, BEE Certified Energy Manager, GRIHA Evaluator& Trainer, EDGE Auditor, IGBC Accredited Professional	
3.	Experience. (use additional sheet if required)		A complete building Physics Expert with 24 years of experience in design of buildings, services, Infrastructures, factories and industries. Experience in project Management, transaction advisory and Building code formulation. Presently 4 years of experience in Energy Audits. Green Building and Energy Modelling Consultant	
4.	Residence (with STD)	Nil	
5.	Mobile		98460 59505	
6	Email waterandenvironmentgto		s@gmail.com	
7	Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) (if not appeared list as nil		01.06.2016 (Energy Manager)	
8	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"		NA	
9	Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems" (In case of Certified Energy Auditor, please write CEA Registration No.)		1. EA 22755	
10	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"		1. 3517	
11	Are you a BEE accredited Energy auditor. If so:		No	

Date: 24.05.17

Place: Kochi

Signature:

Name: Shreeganesh V Nair Designation: Founder & Chief

Consultant

*Bio data of Consultants					
1	Name of En	ergy auditor	Babu T V		
2.	Qualifications.		3 year Diploma in Electrical Engg, Supervisory License Grade – B No.7956/2001/200KVA		
3.	Experience. (use additional sheet if required)		Over 33 years of experience in Erection and Management of electrical installations, substations and building systems in India and abroad. 2 years into Energy Audits		
4.	Residence (with STD)	0480 2734640		
5.	Mobile		99473 29803		
6	Email address	babutv2004@gmail.com@	@gmail.com		
7	Manager or specify) by E	fication as Energy Energy Auditor (pl Bureau of Energy BEE) (if not appeared list	Nil		
8	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"		NA		
9	Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems" (In case of Certified Energy Auditor, please write CEA Registration No.)		NA		
10	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"		NA		
11	Are you a BEE accredited Energy auditor. If so: Date of accreditation Accreditation No.		NA		
		Remai	rks(if any)Nil		

*please attach bio data of all consultants of your firm.

I hereby state that information furnished above is true and correct to the best of my knowledge.

Place: Kochi Date: 24.05.17 Signature:

Name: Babu T V

Designation: MEP Technical

Lead

*Bio data of Consultants					
1	Name of Energy auditor		Manoj Kumar M		
2.	Qualifications.		B Tech Electrical Engg,		
3.	Experience. (use additional sheet if required)		4 years of experience in Energy Audits		
4.	Residence (with STD)		94951 84497		
5.	Mobile		94477 03796		
6	Email address	kumarmanoj784@gmail.	com		
7	Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) (if not appeared list as nil		Nil		
8	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"		NA		
9	Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems" (In case of Certified Energy Auditor, please write CEA Registration No.)		NA		
10	Certificate Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems"		NA		
11	Auditor. If so: Date	EEE accredited Energy of accreditation editation No.	NA		
	Remarks(if any)Nil				

Place: Kochi

Date: 24.05.17

Signature:

Name: Manoj Kumar M

Designation: Consultant

		*Bio data of	Consultants	
1	Name of En	ergy auditor	Nikhila V S	*
2.	Qualifications.		B Tech Electrical Engg,	
3.	Experience. (use additional sheet if required)		1 year of experience in Energy Audits.	
4.	Residence (with STD)		97448 30993	
5.	Mobile		81118 02046	
6	Email address	nikhilavs319@gmail.com		
7	Date of certification as Energy Manager or Energy Auditor (pl specify) by Bureau of Energy Efficiency (BEE) (if not appeared list as nil			
8	Date of passing the examination in "Energy Performance Assessment for Equipment and Utility Systems"		NA	
9	Examination Registration Number of (i) Energy Manager (ii) "Energy Performance Assessment for Equipment and Utility Systems" (In case of Certified Energy Auditor, please write CEA Registration No.)		NA	
10	(i) Energy M (ii) "Energy	Performance t for Equipment and	NA NA	
11	auditor. If so: Date	EE accredited Energy of accreditation editation No.	NA	
Remarks(if any)Nil				

Place: Kochi Date: 24.05.17 Signature:

Name: Nikhila V S

Designation:Consultant