## Power Electronics

Part A Back To Content Page

#### I. Institutional Information

I.1 Name and address of the institution and affiliating university

(Instruction: The name, address of the institution and the name of the university, which has given affiliation to this institution, are to be listed here.)

Gokaraju Rangaraju Institute of Engineering and Technology

Bachupally, Kukatpally, Hyderabad - 500 090

Telangana

I.2 Name, designation, telephone number, and e-mail address of the contact person for the NBA

(Instruction: The name of the contact person, with other details, has to be listed here.)

## Dr. Jandhyala N Murthy

Principal

Phone: 040 - 65864440, 65864441 (O), 040 - 27675542 (R)

Mobile: 9391184994

e-mail: principal@griet.ac.in

I.3 History of the institution (including the date of introduction and number of seats of various programmes of study along with the NBA accreditation, if any) in a tabular form

(Instruction: History of the institution and its chronological development along with the past accreditation records need to be listed here.)

Level	Programme	Dout Time/ Veer of enhancement		Sanctioned Enhancement	Accreditation Status A/NA/PA	NBA Accreditation Visits		
UG	Electrical and Electronics Engineering (EEE)	Full Time	1997	40	2001,2007	20,60	A	2006,2009,2014
UG	Mechanical Engineering (ME)	Full Time	1997	60	2001,2006,2013	30,30,60	A	2006,2009,2014
	Engineering (ECE)	Full Time	1997	40	2000,2001,2006,2011,2013	20,30,30,60,60	A	2006,2009,2014
UG	Computer Science and Engineering (CSE)	Full Time	1997	40		20,30,30,60,60	A	2006,2009,2014
UG	Information Technology	Full Time	1999	40	2000,2006	20,60	A	2006,2009,2014
UG	Civil Engineering (CE)	Full Time	2008	60	2009	60	-	-
UG	Biomedical Engineering (BME)	Full Time	2002	30	-	-	-	-
UG	Bio-Technology (BT)	Full Time	2002	30	2008,2012	60,-30	A	2008
PG	M.Tech - Design for Manufacturing (DFM)	Full Time	2004	18	-	-	-	-
PG	M.Tech - Power Electronics (PE)	Full Time	2006	18	-	-	-	-
PG	M.Tech- VLSI	Full Time	2006	18	-	-	-	-
PG	M.Tech – Embedded Systems (ES)	Full Time	2007	18	-	-	-	-
PG	M.Tech – Computer Science Engineering (CSE)	Full Time	2007	18	2013	6	-	-
PG	M.Tech – Software Engineering (SE)	Full Time	2007	18	-	-	-	-
PG	M.Tech-Thermal	Full Time	2013	18	-	-	-	-

	Engineering							
PG	M.Tech-Power	Full Time	2014	18	-	_		_
	Systems		2014					
1P( ÷	M.Tech-Structural Engineering	Full Time	2014	18	-	-	-	-
	Master of Business Administration (MBA)	Full Time	2006	60	2011	60	-	-

# I.4 Ownership status

(Instruction: Ownership status of the institute has to be listed here.) society (Govt./NGO/private)

#### I.5 Mission and Vision of the Institution

(The institution needs to specify its Mission and Vision).

#### Vision:

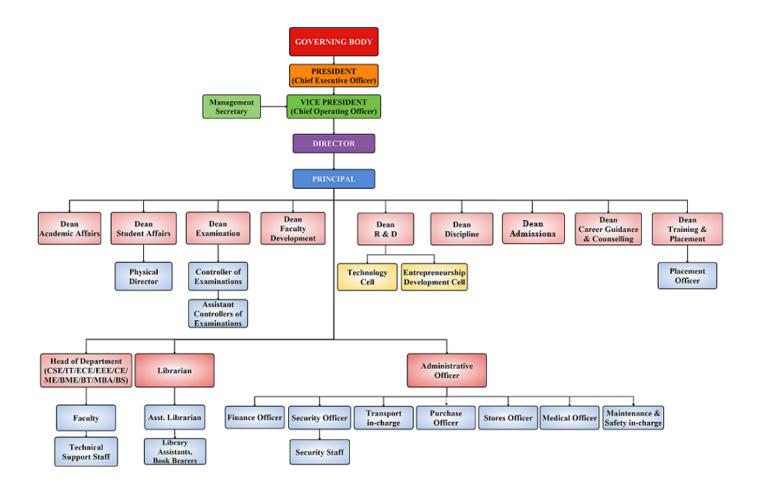
To be among the best of the institutions for engineers and technologists with attitudes, skills and knowledge and to become an epicenter of creative solutions.

#### Mission:

To achieve and impart quality education with an emphasis on practical skills and social relevance.

#### I.6 Organisational Structure

Organisational chart showing the hierarchy of academics and administration is to be included



# I.7 Financial status

(Instruction: Financial status of the institute has to be mentioned here.)

private self-financed

#### I.8 Nature of the trust/society

Also list other institutions/colleges run by the trust/society

(Instruction: Way of functioning and activities of the trust/society has to be listed here.)

Gokaraju Rangaraju Educational Society (GRES) is a charitable educational society promoting quality education in Andhra Pradesh founded and promoted by Dr. Gokaraju Gangaraju, Chairman of Laila Group of Industries, manufacturers of sugar, paper and pharma products.

GRES draws its inspiration from the leadership and vision of late **Sri Gokaraju Rangaraju**, Founder President of S R K R Engineering College, DNR College, Bhimavaram, Chairman of Board of Trustees, Tirumala Tirupati Devasthanams, Member of A.P. Legislative Assembly, a distinguished crusader in the field of education, who focused his efforts on the promotion of quality education.

The main objective of GRES is to promote technological, medical and management educational institutions for the overall benefit of the state in particular, and the country in general.

The society established **Gokaraju Rangaraju Institute of Engineering and Technology** in 1997 and **Gokaraju Rangaraju College of Pharmacy** in 2003. GRIET has the distinction of being one among the Top 10 Ranking and reckoning Institute of choice and preference for the aspiring students. Both these institutions established innovative standards in their respective fields.

#### Colleges run by the Society

Name Year of Establishment Location
Gokaraju Rangaraju College of Pharmacy 2003 Hyderabad

Name	Year of Establishment	Location
Gokaraju Rangaraju College of Pharmacy	2003	Hyderabad

#### I.9 External sources of funds

(Instruction: The different sources of the external funds over the last three financial years are to be listed here.)

Name of the external source	2014-2015	2013-2014	2012-2013	2011-2012
Nil	NA	NA	NA	NA

#### I.10 Internally acquired funds

(Instruction: The different sources of the internal funds over the last three financial years are to be listed here.)

Name of the internal source	2014-2015	2013-2014	2012-2013	2011-2012
Students Fee	30,55,69,800	26,80,53,960	23,24,42,000	20,10,74,000
Special fee, Transport, library fee, Interest on FDR, Miscellaneous	7,22,23,870	7,18,59,390	5,95,60,000	4,87,73,000

# I.11 Scholarships or any other financial assistance provided to students

(Instruction: If any scholarship or financial assistance is provided to the students, then the details of such assistance over the last three financial years has to be listed here. Also mention needs to be made of the basis for the award of such scholarship).

Type of scholarship	2014-2015	2013-2014	2012-2013	2011-2012
State Government Scholarship (Welfare Schemes for SC, ST, BC, EBC, Disabled, Minority)	10,11,00,700	8,91,65,500	7,64,87,300	6,06,38,900
Central Government Scholarships (GATE for PG Studies)	82,56,000	75,84,000	52,80,000	45,12,000
MHRD (BC,SC,ST,EBC,BC-E, Disabled, Welfare)	1,50,000	1,20,000	1,00,000	80,000
South Central Railway Scholarship	-	-	-	2,000
Rank based scholarship by our Institute	3,25,000	1,90,000	3,40,000	-

# I.12 Basis/criterion for admission to the institution

# (Instruction: The basis/criterion for student intake has to be listed here.)

Admissions are made through the Guidelines given by State Government from time to time. Currently admissions for 70% of the sanctioned intake, commonly known as Category "A" by the Government are made through a State-Level Entrance conducted by Govt. of Telangana.

named 'EAMCET' and 'ECET' for B.Tech studies, 'PGECET' and 'GATE' for M.Tech studies, 'ICET' for MBA and 30% admissions under the Category "B" will be made by the Management, following the procedure laid down through the G.Os issued by the Govt. of Telangana.

#### I.13 Total number of students

(Instruction: Total number of engineering students, both boys and girls, has to be listed here. The data may be categorised in a tabular form under graduate or post graduate engineering, or other programme, if applicable.)

	2014-2015	2013-2014	2012-2013	2011-2012
Total no. of boys(UG,PG or other programme if applicable)	2982	2850	2631	2476
Total no. of girls(UG,PG or other programme if applicable)	1625	1514	1379	1337
Total no. of students	4607	4364	4010	3813

## I.14.1 Total number of employees in Regular Staff

(Instruction: Staff strength, both teaching and non-teaching, over the last three academic years has to be listed here.)

	2014-2015 Min	2014-2015 Max	2013-2014 Min	2013-2014 Max	2012-2013 Min	2012-2013 Max	2011-2012 Min	2011-2012 Max
Male Teaching staff in engineering	126	130	112	115	125	132	127	138
Female Teaching staff in engineering	140	152	131	133	113	119	91	97
Male Teaching staff in science & humanities	21	23	19	21	20	23	22	22
Female Teaching staff in science & humanities	20	24	20	22	18	18	11	12
Male Non-teaching staff	53	57	52	56	45	49	43	46
Female Non-teaching staff	23	24	22	24	22	24	16	18

## I.14.2 Total number of employees in Contract Staff

	2014-2015 Min	2014-2015 Max	2013-2014 Min	2013-2014 Max	2012-2013 Min	2012-2013 Max	2011-2012 Min	2011-2012 Max
Male Teaching staff in engineering								
Female Teaching staff in engineering	_	_	_	_	_	_	_	_
Male Teaching staff in science & humanities	_	_	_	_	_	_	_	_
Female Teaching staff in science & humanities	_	_	_	_	_	_	_	_
Male Non-teaching staff	121	127	112	118	105	112	98	104
Female Non-teaching staff	89	98	80	88	75	82	65	75

# II. Departmental Information

# II.1 Name and address of the department

## **Department of Electrical and Electronics Engineering**

Gokaraju Rangaraju Institute of Engineering and Technology

Bachupally, Kukatpally, Hyderabad - 500 090

Telangana

II.2 Name, designation, telephone number, and e-mail address of the contact person for the NBA Dr. J.Praveen,

Professor and Head of the Department,

Department of Electrical and Electronics Engineering,

Gokaraju Rangaraju Institute of Engineering and Technology.

Phone no- 9440381885, 040 65864440,040 65864441.

Email id- drpraveen@griet.ac.in

II.3 History of the department including date of introduction and number of seats of various programmes of study along with the NBA accreditation if any

The Department of Electrical and Electronics Engineering, established in the year 1997, offers Bachelor of Technology (B.Tech) and two Master of Technology (M.Tech) Programmes. B.Tech programme was started in 1997 with an intake of 40, and later intake was increased to 60 in year 2001 and 120 in year 2007. The UG programme offered in this department was thrice accredited by NBA in years 2006, 2009 and 2014. M.Tech (Power Electronics) was started in 2006 with an intake of 18 and M.Tech (Power Systems) was started in the year 2014 with an intake of 18. The programme is intend to educate students on the applications of scientific knowledge for practical purposes involving activities like modeling, analysis, control, simulation and design of electrical machines, power electronics devices, networks, power system components and other associated fields of core courses in Electrical and Electronics Engineering education. It intends to equip graduates with profound theoretical knowledge and rich hands on experience.

Level	Programme of Study	Initial started with Number of seats	In Year	Intake increased to	In Year	Accreditation Status A/NA	Earlier Accreditation Status	Year of obtaining Accreditation
( ÷	Electrical and Electronics Engineering (EEE)	40	1997	60,120	2001,2007	A	A	2006,2009,2014
1P( ÷	M.Tech - Power Electronics (PE)	18	2006	-	-	NA	_	_
PG	M.Tech Power Systems	18	2014	-	-	NA	-	-

## II.4 Mission and Vision of the Department

#### Vision of the Department:

To impart technical knowledge and skills required to succeed in life, career and help society to achieve self sufficiency.

#### **Mission of the Department:**

- To become an internationally leading department for higher learning.
- To build upon the culture and values of universal science and contemporary education.
- To be a center of research and education generating knowledge and technologies which lay ground work in shaping the future in the fields of electrical and electronics engineering.
- To develop partnership with industrial, R&D and government agencies and actively participate in conferences, technical and community activities.
- II.5 List of the programmes/ departments which share human resources and/or the facilities of this programmes/ departments (in %)

(Instruction: The institution needs to mention the different programmes which share the human resources and facilities with this department/programme being accredited.)

Department	Level	Programme	Sharing of Human Resources (%)
Computer Science and Engineering	_	B.Tech	12
Information Technology	UG	B.Tech	12
Mechanical Engineering	UG	B.Tech	12
Biomedical Engineering	UG	B.Tech	12
Basic Sciences	UG	B.Tech	28
MBA	PG	MBA	_

#### II.6 Total number of students

	Level	Programme	2014-2015	2013-2014	2012-2013	2011-2012
Total no. of boys	UG	B.Tech	369	389	375	364
Total no. of girls	UG	B.Tech	166	180	185	190
Total no. of students	UG	B.Tech	535	569	560	554

# II.7 Minimum and maximum number of staff on roll during the current and three previous academic years (1st July to 30th June) in the department

	2014-2015 Min	2014-2015 Max	2013-2014 Min	2013-2014 Max	2012-2013 Min	2012-2013 Max	2011-2012 Min	2011-2012 Max
Teaching staff in the department	36	37	35	35	36	37	31	31
Non-teaching staff	9	9	8	8	8	8	8	8
Total	45	46	43	43	44	45	39	39

II.8 Summary of budget for the CFY and the actual expenditure incurred in the CFYm1, CFYm2 and CFYm3 (for the Department)

Items	Budgeted in CFY 2014-2015	Actual expenses (till) in CFY 2014-2015	Budgeted in CFYm1 2013-2014	Actual Expenses in CFYm1 2013- 2014	Budgeted in CFYm2 2012-2013	Actual Expenses in CFYm2 2012- 2013	Budgeted in CFYm3 2011-2012	Actual Expenses in CFYm3 2011- 2012
Laboratory Equipment	40,00000	30,04000	15,00000	11,80000	10,00000	7,23000	2,00000	46,000
Software	10,00000	5,13000	2,00000	67,000	1,00000	80,000	50,000	54,000
R&D	20,00000	18,27000	15,00000	14,50000	2,00000	24,000	2,00000	50,000
Laboratory Consumables	3,00000	1,21000	1,50000	60,000	3,00000	2,91000	3,00000	3,14000
Maintenance& Spares	15,00000	10,95000	7,00000	3,73000	4,50000	3,73000	4,00000	3,97000
Training &Travel	3,00000	1,49000	2,00000	1,18000	1,00000	20,000	1,00000	90,000
Miscellaneous Expenses for Academic Activities	3,00000	1,97000	2,00000	65,000	1,00000	42,000	1,00000	39,000
Total	94,00000	69,06000	44,50000	33,13000	22,50000	15,53000	13,50000	9,90000

# III. Programme Specific Information

## III.1 Name of the Programme

(List name of the programme, as it appears on the graduate's certificate and transcript, and abbreviation used for the programme.)

Post Graduate

Master of Technology

Power Electronics

III.2 Title of the Degree

(List name of the degree title, as it appears on the graduate's certificate and transcript, and abbreviation used for the degree.)

# Master of Technology

in

## **Power Electronics**

III.3 Name, designation, telephone number, and e-mail address of the Programme coordinator for the NBA Dr. J.Praveen,

Professor and Head of the Department,

Department of Electrical and Electronics Engineering,

Gokaraju Rangaraju Institute of Engineering and Technology.

Phone no- 9440381885, 040 65864440,040 65864441.

Email id- drpraveen@griet.ac.in

III.4 History of the programme along with the NBA accreditation, if any

Programme of study	Started with No Of Seats	In Year	Intake increased to	In Year	Accreditation Status (A/NA)
M.Tech (Power Electronics)	18	2006			NA

III.5 Deficiencies, weaknesses/concerns from previous accreditations

NA

# III.6 Total number of students in the programme

	2014-2015	2013-2014	2012-2013	2011-2012
Total no. of boys:	7	13	9	9
Total no. of girls:	5	5	5	4
Total no. of students:	12	18	14	13

# III.7 Minimum and maximum number of staff for the current and three previous academic years (1st July to 30th June) in the programme

	2014-2015 Min	2014-2015 Max	2013-2014 Min	2013-2014 Max	2012-2013 Min	2012-2013 Max	2011-2012 Min	2011-2012 Max
Teaching staff with the program	4	4	4	4	4	4	4	4
Non-teaching staff	2	2	2	2	2	2	2	2

# III.8 Summary of budget for the CFY and the actual expenditure incurred in the CFYm1, CFYm2 and CFYm3 (exclusively for this programme in the department)

Items	Budgeted in CFY 2014-2015	Actual expenses (till) in CFY 2014-2015	Budgeted in CFYm1 2013-2014	Actual Expenses in CFYm1 2013- 2014	Budgeted in CFYm2 2012-2013	Actual Expenses in CFYm2 2012- 2013	Budgeted in CFYm3 2011-2012	Actual Expenses in CFYm3 2011- 2012
Laboratory Equipment	3,00000	1,80000	1,00000	59,000	2,00000	36,000	50,000	2,000
Software	1,00000	3,000	50,000	3,000	20,000	4,000	20,000	3,000
R&D	1,00000	1,10000	2,00000	73,000	50,000	1,000	50,000	3,000
Laboratory Consumables	50,000	7,000	50,000	3,000	50,000	15,000	50,000	16,000
Maintenance& Spares	1,00000	66,000	2,00000	19,000	1,00000	19,000	1,00000	20,000
Training &Travel	50,000	9,000	50,000	6,000	20,000	1,000	20,000	5,000
Miscellaneous Expenses for Academic Activities	50,000	12,000	50,00	3,000	20,000	2,000	20,000	2,000
Total	7,50000	4,14000	7,00000	1,66000	4,60000	78,000	3,10000	50,000