Gokaraju Rangaraju Institute of Engineering and Technology
(Autonomous)

02 Jul 18

GRIET/IT/BOS/1E/G/18-19

Minutes of Meeting
For

I & II B Tech Information Technology

(For students admitted from 2018-19 as per GR 18 Regulations)

Board of Studies

Held on
02 Jul 2018

Gokaraju Rangaraju Institute of Engineering and Technology
(Autonomous)

Minutes of meeting of the BOS for B Tech Information Technology (I and II Years) of Gokaraju Rangaraju Institute of Engineering and Technology(Autonomous) Hyderabad held on 02 July 2018 in the Chamber of Principal of GRIET at 3:00 PM.

Members Present:

Dr. Y Vijayalata Professor, HOD of IT GRIET, Bachupally, Hyderabad	Head of the Department Department of IT
Dr. Y Sri Lalitha Professor, Dept of IT GRIET, Bachupally, Hyderabad	Chairman, Board of Studies Department of IT
Dr. K Prasanna Lakshmi B.Tech - Programme Coordinator Professor, Dept of IT GRIET, Bachupally, Hyderabad	Member
Mr. P Gopala Krishna Associate Professor, Dept of IT GRIET, Bachupally, Hyderabad	Member
Dr. N. Kalyani Professor, Dept of CSE GNITS, Sheikpet, Hyderabad	Member (External Expert) 2/7/18
Dr. Sk. Amjan Professor, Dept of CSE BVRIT, Narsapur.	Member (External Expert) 02/07/18
Dr. V. Kamakshi Prasad Professor & ~~Head of CSE~~, JNTUH Hyderabad DE	Member (JNTU Nominee) 2/7/18
Mr. Kalyan Kumar Mallisetty Sr. System Consultant Bank of America Inc., Mind Space – Raheja I T Park. Hyderabad.	Member (Industry) 3/7/18
Dr. S. Govinda Rao Professor, Dept of CSE GRIET, Bachupally, Hyderabad	Co-opted Member

Item1. Program Structure and Syllabus for (I and II Years) and Program Structure for (III and IV Years)subject to be approved by Academic Council is confirmed for B Tech Information Technology

Item2. Subjects of BS, HS and ES by B O S of respective Departments are confirmed

Item 3: Evaluation Scheme suggested as per GR18 to be adopted.

Item 4; Panel of Examiners are suggested.

Item 5: Existing practices to be strengthened and continued.

Minutes of meeting of the BOS for B Tech Information Technology (GR18 Regulations) of Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous) Hyderabad held on 02 July 2018 in the Chamber of Principal of GRIET at 4:00 PM.

The following are the suggestions of Panel Members.

1. AICTE Model Curriculum must be guidelines to prepare course structures and need not be followed as it is.
2. Branch Specific Core Courses must be included and should not be compromised with non-branch courses.
3. Provide space for Research inclination by including courses relevant to department/faculty expertise.
4. Fourth Year should contain one Professional Core course along with Elective courses.
5. Provide more choice under Open Elective courses.
6. Credit Distribution must be uniform in all semesters.

Minutes of meeting of the BOS for B Tech Information Technology (GR18-Regulations) of Gokaraju Rangaraju Institute of Engineering and Technology (Autonomous) Hyderabad held on 02 July 2018 in the Chamber of Principal of GRIET at 4:00 PM.

GR-18 Curriculum prepared as per Expert Suggestions and following were incorporated in the new curriculum.

1. We have used AICTE Model Curriculum as guidelines to design GR18 Course Structure.
2. Included Courses relevant to Core Branch : Web Technologies, Information Security, Data warehousing, Data Science, Machine Learning, Animation, Network Security and many elective courses relevant to Information Technology.
3. The faculty expertise is useful for department R&D and to provide research inclination in students. To tap this, courses relevant were introduced as Professional electives.
4. Professional core course in IV year is left to Dean of Academics.
5. Offering three courses under open elective by Department of IT.
6. Credit Distribution is almost Uniform Year Wise.

	Semester	Credits	Year wise Credits
I	I	19	37
	II	18	
II	III	20.5	42
	IV	21.5	
III	V	19	42
	VI	23	
IV	VII	24	39
	VIII	15	
			160

Chairman

Dr. Y. VIJAYALAIA
Professor & Head
DEPARTMENT OF IT
GOKARAJU RANGARAJU
Institute of Engineering and Technology
Bachupally, Kukatpally, Hyderabad-500 090.

Gokaraju Rangaraju Institute of Engineering and Technology
(Autonomous)
Department of Information Technology

Minutes of Meeting Board of Studies

GRIET/IT/BOS/1E/G/18 – 19

08 Jul 18

The Internal BOS Meeting is held on 8 Jul 18, in HODs Cabin, Department of IT, GRIET for courses as per GR18 regulations for students admitted during 2018-19. The meeting is schedule for BTech (I & II) course structure and syllabus for Department of IT.

BOS Chair Summarized the BOS Meeting held on 2 Jul 18 in Principals Chamber.

1. Program Structure and Syllabus subject to be approved by Academic Council is confirmed for B Tech Information Technology (I and II Years).
2. Subjects of BS, HS and ES are confirmed by B O S of respective Departments. Syllabus for various courses keeping in view of the PEOs and POs of the programme and interest of the stake holders and national requirement for consideration and approval of the Academic Council.
3. Evaluation Scheme suggested as per GR18 to be adopted.
4. Being Aware of the AICTE Model Curriculum adoption for GR18 Regulations, the panel suggested core department expertise courses into the programme to inculcate research interest. The suggestion is considered and the course structure is changed as per guidelines of the panel.
5. Thanked the faculty Members involved in Preparing and Submitting Course Structure and Syllabus in-time.

BOS Chair

GokarajuRangaraju Institute of Engineering and Technology
(Autonomous)
Bachupally, Kukatpally, Hyderabad – 500 090, India. (040) 6586 4440

INFORMATION TECHNOLOGY

I YEAR I SEMESTER

S.NO.	Course Codes	COURSE	L	T	P	Total Credits
1		Linear Algebra and Differential Calculus	3	1	0	4
2		Chemistry	3	1	0	4
3		Basic Electrical Engineering	3	0	0	3
4		English	2	0	0	2
5		Engineering Chemistry Lab	0	0	3	1.5
6		Basic Electrical Engineering Lab	0	0	2	1
7		English Language and Communication Skills Lab	0	0	2	1
8		Engineering Workshop	1	0	3	2.5
		Induction Programme				-
		Total Credits	12	2	10	19

I YEAR II SEMESTER

S.NO.	Course Code	COURSE	L	T	P	Total Credits
1		Differential Equations and Vector Calculus	3	1	0	4
2		Applied Physics	3	1	0	4
3		Programming for Problem Solving	3	1	0	4
4		Applied Physics Lab	0	0	3	1.5
5		Programming for Problem Solving Lab	0	0	3	1.5
6		Engineering Graphics	1	0	4	3
7		Environmental Science	3	0	0	0
		Total Credits	13	3	10	18

*MC-satisfied/Unsatisfied

II YEAR I SEMESTER

S.NO.	Course Codes	COURSE	L	T	P	Total Credits
1		Analog Electronic Circuits	3	0	0	3
2		Data structures and Algorithms	3	0	0	3
3		Digital Electronics	3	0	0	3
4		Probability and Statistics	3	0	0	3
5		Values Ethics and Gender Culture	3	0	0	3
6		Unix and Shell Programming Lab	0	0	4	2
7		Data structures and Algorithms Lab	0	0	4	2
8		Digital Electronics Lab	0	0	4	2
9		IT Workshop	1	0	4	3
		Total Credits	16	0	16	24

II YEAR II SEMESTER

S No	Course Codes	COURSE	L	T	P	Total Credits
1		Discrete Mathematics	3	0	0	3
2		Computer Organization and Architecture	3	0	0	3
3		Operating Systems	3	1	0	4
4		Design and Analysis of Algorithms	3	0	0	3
5		Quantitative Methods for Decision Making	3	0	0	3
6		Computer Organization and Architecture Lab	0	0	4	2
7		Operating Systems Lab	0	0	4	2
8		Design and Analysis of Algorithms Lab	0	0	4	2
		Total Credits	15	1	12	22

III YEAR I SEMESTER change

S.NO.	Course Codes	COURSE	L	T	P	Total Credits
1		Signals and Systems	3	0	0	3
2		Database Management Systems	3	0	0	3
3		Formal Languages and Automata Theory	3	0	0	3
4		Object Oriented Programming	3	0	0	3
5		Software Testing Methodologies	3	0	0	3
6		Open Elective-I	3	0	0	3
7		Elective-I	3	0	0	3
8	*MC	Constitution of India	3	0	0	0
9		Database Management Systems Lab	0	0	4	2
10		Object Oriented Programming Lab	0	0	4	2
		Total Credits	24	0	8	25

III YEAR II SEMESTER

S No	Course Codes	COURSE	L	T	P	Total Credits
1		Complier Design	3	0	0	3
2		Computer Networks	3	0	0	3
3		Elective-II	3	0	0	3
4		Open Elective-II	3	0	0	3
5		Fundamentals of Management and Entrepreneurship	3	0	0	3
6		Complier Design Lab	0	0	4	2
7		Computer Networks Lab	0	0	4	2
8		Mini Project	0	0	6	3
9	*MC	Environmental Science (Only for Lateral Entries)	3	0	0	0
		Total Credits	18	0	14	22

IV YEAR I SEMESTER

S.NO.	Course Codes	COURSE	L	T	P	Total Credits
1		Elective-III	3	0	0	3
2		Elective-IV	3	0	0	3
3		Open Elective-III	3	0	0	3
4		Project –I	0	0	12	6
		Total Credits	9	0	12	15

IV YEAR II SEMESTER

S.NO.	Course Codes	COURSE	L	T	P	Total Credits
1		Elective-V	3	0	0	3
2		Elective-VI	3	0	0	3
3		Open Elective-IV	3	0	0	3
4		Project –II	0	0	12	6
		Total Credits	9	0	12	15

PROFESSIONAL ELECTIVES – 4 THREADS

Thread1: **Systems**	Thread2: **Data Science and Machine Intelligence**	Thread3: **Programming**	Thread4: **Networking and Security**
Software Engineering	Artificial Intelligence	Principles of Progamming Languages	Information Security
Advanced Computer Architecture	Data Mining	Python and R Programming	Network and Cyber Security
Distributed systems	Machine Learning	Web Technologies	Advanced Computer Networks
Embedded Systems	Data Analytics	Essentials of Big Data Programming	Mobile Computing
Advanced Operating Systems	Soft Computing	Mobile Application Development	Adhoc and Wireless Sensor Networks
Real Time Systems	Neural Network and deep Learning	Component Oriented Programming Languages	Cloud and Distributed Computing

OPEN ELECTIVES – 2 THREADS

S. No.	THREAD 1	THREAD 2
1	Soft Skills and Interpersonal Communication	CSE: E-Commerce
2	Human Resource Development and Organizational Behaviour	IT: Multimedia and Application Development
3	Cyber Law and Ethics	EEE: Embedded Systems
4	History of Science	ECE: Principles of Operating Systems
5	Introduction to Art and Aesthetics	ME: Operations Research
6	Economic Policies in India	CE: Green Building Technology

Gokaraju Rangaraju Institute of Engineering and Technology
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Department of Information Technology

Minutes of Meeting Board of Studies

GRIET/IT/BOS/1E/G/18 – 19

20 Jun 18

The Internal BOS Meeting is held on 20 Jun 18, in HODs Cabin, Department of IT, GRIET for courses as per GR15 regulations for students admitted during 2018-19 . The meeting is schedule for B.Tech. (I & II) course structure and syllabus for Department of IT.

BOS Chair discussed the following

1. The new regulations GR18 will be in force for students taking admission during 2018-19. The new regulations are guided by AICTE Model Curriculum.
2. After brainstorming sessions, the IT BOS has come up with a Course Structure with four streams of specializations.
3. The GR18 Course structure presents depth and breadth of Knowledge and given more flexibility of choosing courses of interest.
4. Course Structure of GR18 and Syllabus of (I & II Years) are discussed.
5. Preparation of syllabus for courses kept in view the PEOs, POs of the programme, interest of the stake holders, national requirement and for consideration and approval of the Academic Council.

BOS Chair

Gokaraju Rangaraju Institute of Engineering and Technology
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Department of Information Technology

Minutes of Meeting Board of Studies

GRIET/IT/BOS/1E/G/18-19 **20 Jun 18**

BOS Internal Meeting on GR18 Regulations in Department of Information Technology

The members of Board of studies during the meeting held on 20-Jun-2018, in the department of Information Technology, concluded the following recommendations for GR18 Syllabus.

As per AICTE Model curriculum it is recommended to design the courses for GR18 regulations. All the syllabus must be modified as per AICTE guidelines and the course content should be much relevant to reduce the industry institute gap.

Graduate IT Students can work in various sectors as Programmers, Software Developers, Data Analysts, Software and System Engineers, System Analysts, Web Designers, website developers, mobile application developers etc., GR18 Course structure is designed keeping the employability, Higher Education, R & D and Entrepreneurs.

In this context three areas of recommendations considered in designing the GR18 Syllabus

I. **Inclusion of New Courses**
II. **Skill Development**
III. **Modification of Courses**

I. Inclusion of New Courses

The following new courses were recommended

I Year – I Semester
1. Programming for Problem Solving Theory and Lab

II Year - I Semester
1. Data Structures Theory and Lab

II Year – II Semester
1. Data Communication and Computer Networks Theory and Lab
2. Operating Systems and Sci Lab

III Year – I Semester
1. Web Programming Theory and Lab
2. Artificial Intelligence (Elective – I)

III Year - II Semester
1. Data warehousing and Mining Theory and Lab
2. Unified Modelling Language Theory and Lab
3. Python and R Programming (Elective – II)

IV Year – I Semester
1. Machin Learning Theory and Lab
2. Internet of Things Theory and Lab
3. Advanced Computer Networks (Elective – III)
4. Information Retrieval Systems (Elective – III)
5. Multimedia Application Development (Elective – IV)
6. Soft Computing (Elective – IV)
7. Cryptography and Network Security (Elective – IV)

IV Year - II Semester
1. Essentials of Big Data Programming (Elective V)
2. Neural Networks and Deep Learning (Elective V)
3. Speech and Natural Language Processing ((Elective VI)

Courses suggested in I Year – II Semester.

- **Programming for Problem Solving Theory and Lab**
  The course Programming for Problem solving will not signify a particular Programming Language for problem solving, rather it specifies the required constructs for solving a problem using computers. The course gives flexibility to choose any language for programming.

Courses suggested in II Year – I Semester.

- **Data Structures Theory and Lab**
  The course Data Structures also not signifies a particular Programming Language thereby giving flexibility of programming Language

Courses suggested in II Year – II Semester

- **Data Communication and Computer Networks Theory and Lab**
  The course is adapted from AICTE Model Curriculum helpful in competitive exams for higher

education and selecting a Networks Specialization thread of electives.

- **Operating Systems and Sci Lab**
  The course Sci-lab is newly introduced to enable students to adapt to new tools that simplifies numerical computations. Sci Lab is open source and platform independent Numerical Computation software.

Courses suggested in III Year – I Semester

- **Web Programming Theory and Lab**
  Graduate of IT should have a comprehensive knowledge of Stand-alone, Server Side and Web based application development. The course is introduced to impart web based programming skills that has wide applications and employability.

- **Artificial Intelligence (Elective – I)**
  The future of IT is all based on Artificial Intelligence. The machine is replacing human in many ways. Having a concrete knowledge in this area brings better employability and research opportunities.

Courses suggested in III Year – II Semester

- **Data warehousing and Mining Theory and Lab**
  Adapted from AICTE model curriculum and the course has wide market demand research and employability wise. Therefore the course is introduced.

- **Unified Modelling Language Theory and Lab**
  The course is useful for project design and documentation, in GR18 the student has to take up Mini Project and summer internships where the project designing documentation tool is required. So the course is introduced.

- **Python and R Programming (Elective – II)**
  The increasing demand of Data Analytics Solutions and Job Opportunities Python or R Programming Languages provide in-built libraries for certain required functions. Having the knowledge of these languages increase research implementations, employability.

Courses suggested in IV Year – I Semester

- **Machine Learning Theory and Lab**
  Future of IT Graduate lies in Machine Learning Applications and Research for optimized performance. For better placements and research works this course is introduced.

- **Internet of Things Theory and Lab**
  Everything is based on Internet. There is wide requirement of research and applications developments integrating hardware and software. Internet of Things is a course that gives this ability to students.

- **Advanced Computer Networks (Elective – III)**
  Deeper insights on Networks, students interested in Networks thread can choose this course. For Research and Placements

- **Information Retrieval Systems (Elective – III)**
  Information Retrieval is an important task of a software. Efficient Information Retrieval techniques are essential in present days. The course covers Retrieval of unstructured data techniques. The Course is introduced for employability and Research orientation.

- **Multimedia Application Development (Elective – IV)**
  Multimedia Application Development is another area that is in demand currently. For employability this course is introduced

- **Soft Computing (Elective – IV)**
  In Computer Science there are section of problems that falls in NP-Complete, for which finding a solution is hard. Compromising with inexact solutions, tolerant to uncertainty, approximation - Soft Computing is a solution and it is a resemblance of Human Mind. The rough set theory, theory of randomness, uncertainty are the need of current time. Introduces the concepts of Soft computing.

- **Cryptography and Network Security (Elective – IV)**
  To get Deeper Insights on Networks Security the course is introduced. Employability and Research opportunities are plenty in this area.

Courses suggested in IV Year - II Semester

- **Essentials of Big Data Programming (Elective V)**
  More Data gives Better Insights. Handling huge data and processing huge data requires special technology and the skill to use it. Hadoop and related eco-system makes big data programming simple. To enable student to understand Big Data Programming the course is introduced. The course has a high demand for employability.

- **Neural Networks and Deep Learning (Elective V)**
  Students chosen Data Science / Machine Learning can deep dive into by selecting this course. To better understand data for better insights. The course is high in demand both in research and employment.

- **Speech and Natural Language Processing ((Elective VI)**
  Speech and Natural Language Processing both the fields are having high research requirement as well as many applications. This course is introduced for both research and employability.

II. Skill Development

To reduce the Industry Institute gap and to inculcate R & D in students the members suggested Skill Development in two forms. Imparting **Conceptual knowledge** and **Practical Exposure** will contribute to Research & Development and improve students Placements.

Conceptual Knowledge : Members of BOS suggested to include four different threads of specializations. The choice of selecting a specialization is given to a student to deep dive into a stream. There by inclined towards Research or Entrepreneurship. Each of the thread suggested six courses. Therefore in all student is provided with 24 elective options. There will be a flexibility for students either to deep – dive or get breadth of knowledge depending on the selection of courses.

The following four threads are suggested

1. Systems and Software Architecture
2. Programming
3. Data Science and Machine Learning
4. Applications and Networking

Practical Exposure : As per AICTE Model curriculum at the end of the semester the student should undergo with a project work. In GR18 regulations the following recommendations are suggested.

1. Summer Internships in III Year – II Semester
2. Mini Project with Seminar in III Year – II Semester.
3. Major Project Phase I in IV Year – I Semester
4. Major Project Phase II in IV Year – II Semester.

III. Modifications of Courses

The members of BOS recommended to change the course contents of all the courses that should reflect the fundamentals of industry and research requirements.

Dr. Y. Vijaylatha

BOS Chairman

Gokaraju Rangaraju Institute of Engineering and Technology
(Autonomous)
Department of Information Technology

Minutes of Meeting Board of Studies

GRIET/IT/BOS/1E/G/18 – 19 **10 Apr 18**

The Internal BOS Meeting is held on 10 Apr 18, in HODs Cabin, Department of IT, GRIET for courses as per GR15 regulations for students admitted during 2018-19 . The meeting is schedule for BTech (I & II) course structure and syllabus for Department of IT.

BOS Chair discussed the following

1. The new regulations GR18 will be in force for students taking admission during 2018-19. It is decided the new regulations are as per AICTE Model Curriculum.
2. The Members of IT Department should come up with course structure as per AICTE model curriculum guidelines.
3. B.Tech IT (I & II) Years Courses and their Syllabus to be discussed in next internal BOS meeting.
4. Invited Suggestions for New Courses with syllabus to be considered in GR18 Course Structure.
5. BOS Chair suggested the Preparation of syllabus for various courses should keep in view the PEOs, POs of the programme, interest of the stake holders, national requirement and for consideration and approval of the Academic Council.
6. Invited suggestions for innovative teaching and evaluation techniques.

BOS Chair

Gokaraju Rangaraju Institute of Engineering and Technology

Department of IT

Internal BOS Meeting

S.No	Name of Employee	Designation	Signature
1	Dr.Y.Vijayalata	Professor	
2	Dr. K. Prasanna Lakshmi	Professor	
3	Dr. Y.Sri Lalitha	Professor	
4	Dr. N.V.Ganapathi Raju	Professor	
5	Dr. Y. J. Nagendra Kumar	Professor	
6	Sri P. Gopala Krishna	Associate Professor	
7	Sri G. Vijendar Reddy	Associate Professor	
8	Mrs V. Padma	Associate Professor	
9	Mrs. Veena Trivedi	Associate Professor	
10	Sri G. Satyanarayana	Asst. Professor	
11	Mrs. K. Archana	Asst. Professor	
12	Sri K. Sandeep	Asst. Professor	
13	Mrs K. Lakshmi Sushma	Asst. Professor	
14	Mrs.L.Sukanya	Asst.Professor	
15	Mr. A.Kapil Kumar	Asst.Professor	
16	Mrs.V.Shailaja	Asst.Professor	
17	Sri P. K. Abhilash	Asst. Professor	
18	Ms.K.Anusha Nagina	Asst.Professor	
19	Ms.S.Renuka	Asst.Professor	
20	Mrs.Y.Prasanthi	Asst.Professor	
21	Mrs. A. Pavithra	Asst. Professor	
22	Mrs T.N.P. Madhuri	Asst. Professor	
23	Mrs. P Bharathi	Asst.Professor	