#### Minutes of 1<sup>st</sup> Senate Meeting (Urgent) held online IIIT Raichur 26 Dec 2022 at 2:30 PM

#### Section A: In the Presence of Student Representatives:

Attendance is placed at Appendix 'A'

#### A-1.1 Announcements:

The Director welcomed all the members to the first Senate meeting of IIIT Raichur. He stated that the senate meeting had to be called at short notice in view of the requirements to send the FC and BoG agenda points before 30 Dec 22 to the Ministry. He further thanked all the members for attending the meeting, despite the short notice and requested Dr. Debasish to give an overview of the Academic progress of the Institute

#### A-1.2 Update on the Academic Progress of the Institute:

Sl. No.	Highlights	Details
1.	Year-wise increase in the number of	2019 - 27/30
	students admitted/intake	2020 - 25/30
		2021 - 43/50
		2022 - 47/60
2.	Students participation in various code	More than 20 students are
	clubs	actively taking part in
		Android app development
		as a part of Google
		Developer Student Club,
		IIIT R.
3	Placement Statistics	Number of students placed:
		10.
		Total Companies Visited: 8.
		Average Placement
		Package: 23 Lakhs Per
		Annum (LPA). Three
		students have been placed
		with Amazon with a
		package of 45 LPA.

Senate Resolution on item A-1.2: Noted.

#### A-1.3 Proposal for starting of PhD programme

The advertisement for starting of PhD programme has been placed on the institute website after interim approval by the Chairman, Senate. Details attached at *Annexure 1*. Senate Resolution on item A-1.3: Approved.

A-1.4 Proposal for re-designation of B Tech Artificial Intelligence (AI) to B Tech Artificial Intelligence and Data Science (AI & DS)

Senate Resolution on item A-51.4: Approved.

A-1.5 Proposal for promulgation of revised guidelines for internship for students Details attached at *Annexure 2*.Senate Resolution on item A-51.4: *The proposal may be put up in the next Senate meeting*.

A- 1.6 Proposal for commencement of B Tech (AI & DS) w.e.f July 23 with an Intake of 60 students

Details attached at *Annexure 3*. Senate Resolution on item A-1.7: *Approved*.

# A-1.7 Proposal for Increase in Intake of B Tech (CSE) from 60 to 80 Students Senate Resolution on item A-1.7: *Approved*.

A-1.8 Any other points- There being no other points, the meeting was concluded.

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#### 1<sup>st</sup> Senate Attendance-IIIT Raichur

#### Members in Attendance on 26 Dec2022:

Prof. Harish Kumar Sardana, Director IIIT Raichur, Prof. Saptarshi Majumdar, IIT Hyderabad, Prof. Bharat Bhooshan Panigrahi, IIT Hyderabad, Prof. Bheemarjuna Reddy Tamma, IIT Hyderabad, Prof. Prem Pal, IIT Hyderabad, Dr. Sathya Peri, IIT Hyderabad, Dr. Subrahmanyam Kalyanasundaram, IIT Hyderabad, Dr. Viswanath Pulabaigari, IIIT Sri City, Dr. Ramesh Jallu. IIIT Raichur, Dr. Debasish Mukherjee,IIT Raichur, Dr. Suresh Chavhan, IIIT Raichur, Dr. Nabin Kumar Meher, IIIT Raichur, Dr. Priodyuti Pradan, IIIT Raichur and Commodore Manohar Nambiar (Retd.), Registrar IIT Hyderabad.

#### The following members could not attend the meeting on 26 Dec 2022:

Prof. K V L Subramaniam, Dr. Alka Chadda, IIIT Raichur.

Student Representatives: Mr. Deepak Sai Perisetla and Ms. Beerelly Srinitha,

#### ANNEXURE 1

IIIT Raichur invites applications for admission to the Ph.D. programme [Regular with Institute Fellowship, Individual Fellowship (i.e., CSIR, UGC, DBT, ICMR, INSPIRE, etc.) and external for working professional] of the institute in the department of Computer Science & Engg. and only a regular Ph.D. in the Mathematics department. To know more about the department and research interests of the faculty, please visit https://iiitr.ac.in/faculty

#### **Thrust Areas**

#### CSE:

Applied Computer Science (AI, Machine Learning, IoT, Data Science, etc.)

Theoretical Computer Science (Algorithms)

High-Performance Computing using FPGA and GPU

Communication, Signal Processing, Image Processing, and Network Science

Next Generation Intelligent Transportation Systems, Drones, and Autonomous Vehicles

Information Dynamics, Spectral Graph Theory, Complex Systems, and Network analysis

#### Mathematics:

Fractional Differential Equations, Controllability, and Stability Theory, Complex Systems & Network Analysis.

Note that the research topics are not limited to the above-mentioned thrust areas and can be decided based on the mutual interest of the guide and the Ph.D. scholar.

#### **Financial Assistance**

Regular Ph.D. students are eligible to receive financial assistance through various avenues. Pl. see the Ph.D. Regulations.

#### Categories of Ph.D. Candidates

#### Institute-funded Candidate (FULL TIME)

In this category, a candidate works full-time for his or her Ph.D. degree. The candidate will be working on the sponsored research project funded by the institute. Students receive assistantships/fellowships from the institute project.

#### National Fellowship funded Candidate (FULL TIME)

A candidate in this category works full-time for his or her Ph.D. degree. The candidates need to have an assistantship or fellowship from CSIR/INSPIRE / Visvesvaraya / Google / UGC / NBHM / DAE/ DST / DBT / NBHM / or any other recognized funding agency.

#### Sponsored Candidate (FULL TIME)

In this category, a candidate is sponsored by academic institutions, government, semigovernment, industry, private, and R&D organizations to carry out the research at the institute on a full-time basis. The candidate must be a regular employee of the sponsoring body. During submission of the application form, the candidate must attach a sponsorship letter, endorsement letter, and NOC. The candidate would not receive any assistantships/fellowships from the institute.

#### Self-financed Candidate (FULL TIME)

A candidate in this category works full-time toward a Ph.D. Programme. The Institute will not provide any assistantship/fellowship to such a student.

#### **Eligibility Criteria**

#### **Computer Science & Engineering (CSE)**

For admission to the Ph.D. programme, a candidate must satisfy the following criteria:

i) Master's degree in Computer Engineering / Information Technology / Computer Science / Computer Applications/ Electronics and Communication Engineering / Electrical Engineering or equivalent area with a minimum Cumulative Grade Point Average (CGPA) of 7.0 for general/OBC (Creamy layer) candidates, 6.5 for OBC (Non-creamy layer) candidates, and 6.0 for SC/ST candidates.

#### OR

ii) Four-year Bachelor's degree in Computer Engineering / Information Technology/ Electronics and Communication Engineering/Electrical Engineering from any IIT's, NIT's, IIIT's / Other Institutions of National Importance with a minimum CGPA of 7.5 for general/OBC (Creamy layer) candidates, 7.0 for OBC (Non-creamy layer) candidates, and 6.5 for SC/ST candidates. Such students will be awarded both MS and Ph.D. degrees upon completion of the Ph.D. programme without any exit option during the programme.

#### Mathematics (only regular Ph.D.)

Candidates applying for the Ph.D. program need to possess the MA/MSc in Mathematics with a minimum CGPA of 6.5 for general/OBC (Creamy layer) candidates, 5.8 for OBC (Non-creamy layer) candidates, and 5.5 for SC/ST candidates.

Notes:

All the CGPA mentioned above are out of 10. CGPA received on any other point scale (such as 8) and marks/percentages will be converted to a 10 CGPA scale.

Candidates with degrees with specialization in various CSE/EE/IT/ECE sub-disciplines such as MTech/ME in Artificial Intelligence, Information Security, Data Sciences, Signal Processing & Digital Design, Communication Systems, etc., can also apply. They will be

considered as having MTech/ME in CSE/EE/IT/ECE and the eligibility criteria will be applied accordingly.

The departments reserve the right to set a suitable cutoff criterion for shortlisting the candidates for interview. The departments also reserve the right NOT to select any candidate.

#### **Application Fee**

An application fee of Rs.1000/ for General/OBC, and Rs. 500/- for SC/ST/PWD/Female candidates need to pay the fee using the SBI Collect link. You need to save the proof of payment that you must upload at the time of application submission.

#### Admission Procedure

The admission process typically consists of one or multiple rounds of online interviews depending on the number of shortlisted candidates. The list of candidates who are selected after the final interview will be announced on the institute website approximately within two weeks of the interview date. Selected candidates will also be intimidated by email.

#### **Submission Procedure**

Please use the common application form (Google form) for both CSE and Mathematics departments.

The deadline for your submission is 5 PM on 30th December 2022.

#### **Contact Details**

Please send your queries to queries.phd@iiitr.ac.in

#### ANNEXURE 2

#### Internship Guidelines - IIIT R

#### (Effective from 2020 Batch)

- 1. A student can enroll for an internship in either 6th or 7th or 8th semester.
- 2. A student has to score a minimum of 7.5 CGPA with no active backlogs in all previous semesters for availing the internship.
- 3. The duration of the internship is 6 months.
- 4. Only one internship will be allowed in the entire BTech course.
- 5. A student can only opt for either major project or internship. As per the curriculum, a major project is of 9 credits and internship is of 6 credits.
- 6. A student opting for the internship has to inform his/her faculty adviser prior (at the beginning of a particular semester) along with the letter of approval from the industry/research institute he/she wants to get enrolled.
- 7. Upon successful completion, a student has to submit the internship report to the faculty adviser. A committee will be formed to conduct the viva for evaluation.
- 8. Below are the guidelines which has to be followed if a student opts for internship in a specific semester:

Sl. No.	Semester for enrolling	Guidelines
1.	6th Semester	It is mandatory for the student to complete the credit courses in either 7th or 8th semester.
		If no courses are offered during 8th semester, the student has to register with the 6th semester course (during 8th semester only) to complete the credit requirements.
		Since, only one internship is allowed, if a student completes the internship prior to placement, he/she will be allowed to appear for those companies whose mandatory requirement is not internship before PPO.

2.	7th Semester	It is mandatory for the student to complete the credit courses in either 6th or 8th semester.
		If no courses are offered during 8th semester, the student has to register with the 6th semester course (during 8th semester only) to complete the credit requirements.
		Since, only one internship is allowed, if a student completes the internship prior to placement, he/she will be allowed to appear for those companies whose mandatory requirement is not internship before PPO.
3.	8th Semester	For 8th semester, a student is only allowed for internal course registration if the internship is online. If the internship is offline, a student is allowed to enroll for online NPTEL courses.
		If a student chooses NPTEL courses, a faculty advisor is requested to approve only those NPTEL courses for which a faculty is associated for evaluation. A decision will be taken by the faculty along with the adviser for the evaluation of the NPTEL courses.
		The NPTEL courses will be of maximum 3 credits. A student is only allowed to register for computer science & engineering courses. There will be internal evaluation courses which are not graded. For other courses, it is mandatory to submit the grade card for evaluation.
		For NPTEL courses please note the following regards to the duration of the courses, (a) 4 weeks is equivalent to 1 credit course (b) 8 weeks is equivalent to 2 credits and (c) 12 weeks is equivalent to 3 credit courses. The total number of credits should be a maximum of three irrespective of whether it is either 1 or 2 or 3 credit courses.
		The registration fee for the NPTEL courses will be borne by the students and the same will not be reimbursed by the institute.

The syllabus of NPTEL courses chosen should not match beyond 20% with that of the courses already completed by a student.

### Annexure 3

	First Year							
	SEMESTER I		SEME	ESTER II				
Sl.No.	Course Name	Credit	Course Name	Credit				
1.	Math - I	3	Math – II	3				
2.	Introduction to C Programming	3	Object Oriented Programming using JAVA	3				
3.	Introduction to Computer Science	2	Discrete Mathematics	3				
4.	Introduction to AI and Data Science	2	Introduction to Data Structure	3				
5.	Introduction to digital logic design	2	Theory of Computation	3				
6.	Professional Communication and Written English	2	Finance & Accounting	1				
7.	LA / CA Elective	2						
Total Credit 16 Total Credit 16								

## Tentative Curriculum – BTech in AI and DS

	Second Year							
Semester III			Semester IV					
Sl.No.	Course Name	Credit	Course Name	Credit				
1.	Probability and random process	2	Statistics for Data Science	3				
2.	Operating Systems	3	Linear Algebra and Matrix Theory	3				
3.	Computer Architecture	3	Design & Analysis of Algorithm	3				
4.	Artificial Intelligence	3	Database Management Systems	3				
5.	Foundation of	3	Data Science	3				

	Machine Learning			
6.	Python for Engineers	3	Data Analytics	2
	Total Credit	17	Total Credit	17

			Third Year				
Semester V			Semester VI				
			Without Internship		With Internship		
Sl. No.	o. Course Name Credit		Course Name	Credit	Course Name	Credit	
1.	Python for AI	2	Python for Data Science	2	Internship	6	
2.	Cloud Computing	3	Data Warehousing and Data Mining	3			
3.	AI Elective 1	3	DS Elective 1	3			
4.	AI Elective 2	3	DS Elective 2	3			
5.	Ethics in AI	2	Ethics in DS	2			
6.	Free Elective 1	3	Free Elective 2	3			
7			Science Elective 1	1			
L	Total Credit	16	Total Credit	17	Total Credit	6	

	Fourth Year							
	Semester VII					Semeste	r VIII	
W	ithout Inter	nship	With Int	With InternshipWithout Internship		With Internship		
S1.	Course	Credit	Course	Credit	Course	Credit	Course	Credit
No.	Name		Name		Name		Name	
1.	Minor	3	Minor	3	Major	9	AI	3
	Project		Project 2		Project		Elective	
	1						5	
2.	AI	3	AI	3			DS	3
	Elective		Elective 4				Elective	

	3						5	
3.	DS Elective 3	3	DS Elective 4	3			Free Elective 7	3
4.	Free Elective 3	3	Free Elective 5	3			Science Elective	1
5.	Free Elective 4	3	Free Elective 6	3				
<b>I</b>	Total Cre	edit 15	Total Cr	edit 15	Total C	Credit 9	Total Cr	edit 10

#### List of Elective Courses in Artificial Intelligence:

- 1. Deep Learning.
- 2. Image and Video Processing.
- 3. Neuromorphic Computing.
- 4. Pattern Recognition.
- 5. Biomedical Signal and Image Processing.
- 6. AI in Health Care.
- 7. Natural Language Processing.
- 8. Reinforcement Learning.
- 9. Computational Geometry.
- 10. Text Mining.

List of Elective Courses in Data Science:

- 1. Time Series Analysis.
- 2. Financial Management & Accounting.
- 3. Business Analytics.
- 4. Data Engineering.
- 5. Cyber Security.
- 6. Graph and Social Networking.
- 7. Machine learning.
- 8. Deep Learning.
- 9. Big Data for Data Science.
- 10. Information Retrieval.