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VIGNAN'S FOUNDATION FOR SCIENCE, TECHNOLOGY AND RESEARCH
Department of Advanced Computer Science & Engineering

Date: 22.03.2024

<u>Minutes of Department Academic Advisory Committee (DAAC) Meeting</u>

Department Academic Advisory Committee meeting of B.Tech., CSE–AIML programme was conducted on 20.03.2023 in HoD ACSE Office Room, Sixth floor, N Block, VFSTR, from 02:00 PM onwards. Agenda of the Department Academic Advisory Committee Meeting:

1. Review the proposed first-year course structure for the Revised R22 regulation for the BTech CSE AIML program
2. Finalize the course structure for the remaining courses of the BTech CSE AIML program
3. Analysis of the feedback collected from various stakeholders such as Alumni, Employers, Faculty, Parents and Students during the academic year 2022-23
4. Discussion of results-FA, SA, grades
5. Discussion of attainments process, rubrics, CO/PO/PSO and SO values.
6. Any other points with the permission of Chairperson.

The following members were present

SNO	Name and designation of the Member	Position	Signature
1	Dr. Venkatesulu Dondeti, Professor and Head	Chairman	*Venkatesulu*
2	Dr. Nirupama Bhat M, Professor	Member	*sign*
3	Dr B. Jyostna Devi, Associate Professor & AIML Co-ordinator	Member and Convener	B.Jy
4	Dr. D. Radha Rani, Associate Professor& CS Co-ordinator	Member	*sign*
5	Dr Bala Krishna S, Assistant Professor & DS Co-ordinator	Member	SBb
6	Dr DS Bhupal Naik, Assistant Professor & CSBS Co-ordinator	Member	*sign*
7	Dr Arul Elango Associate Professor	Member	9-A *sign*
8	Dr Brij Kishore Tiwari, Assistant Professor	Member	B.tiwari

Chairperson Dr. Venkatesulu Dondeti, Professor and Head, initiated the meeting and presented about the result analysis of II year I Semester followed by changes in the curriculum is discussed.

The following points were discussed in the Department Academic Advisory Committee meeting:

1. Result analysis of II year I semester (BTech CSE-AIML)

S.No.	Subject Name	Sec.	Strength	# Students Pass	Pass%	R	I	O	S	A	B	C	M	L
1	AI	A	78	77	98.72	0	1	2	11	52	12	0	0	0
2	DLCO	A	78	78	100	0	0	1	7	51	16	2	1	0
3	DBMS	A	78	76	97.44	0	2	0	5	43	25	3	0	0
4	ES	A	78	78	100	0	0	0	2	73	3	0	0	0
5	MS	A	78	77	98.72	1	0	0	6	38	28	5	0	0
6	PSML	A	78	77	98.72	0	1	1	18	39	17	2	0	0
7	DS	A	78	77	98.72	0	1	1	6	41	25	4	0	0
8	AI	B	78	76	97.44	2	0	0	12	41	21	2	0	0
9	DLCO	B	78	76	97.44	2	0	4	15	41	15	1	0	0
10	DBMS	B	78	76	97.44	2	0	1	12	42	13	6	2	0
11	ES	B	78	75	96.15	1	2	0	8	63	4	0	0	0
12	MS	B	78	76	97.44	1	1	0	9	44	21	2	0	0
13	PSML	B	78	75	96.15	3	0	1	20	36	14	4	0	0
14	DS	B	78	75	96.15	3	0	0	9	40	17	9	0	0

2. Result analysis of III year I semester (BTech CSE-AIML)

S.NO	Subject Name	Section	Strength	No of Students Pass	Pass% Overall	R	I	O	S	A	B	C	M	L
1	DL	A	55	55	100	0	0	1	7	30	13	3	1	0
2	CN	A	55	55	100	0	0	1	8	35	10	1	0	0
3	FLAT	A	55	55	100	0	0	0	5	25	20	4	1	0
4	DL	B	52	52	100	0	0	1	6	26	14	4	1	0
5	CN	B	52	52	100	0	0	0	6	34	11	1	0	0
6	FLAT	B	52	51	98.08	0	1	2	6	28	13	2	0	0

The analysis reveals a concerning trend of higher "R" grades in II year, signaling a need for targeted intervention to support struggling students. Additionally, efforts should be directed towards uplifting "C" and "M" grade students across subjects to improve overall academic performance and ensure satisfactory outcomes.

The following resolutions made after the discussion:

- Draft version of the curriculum is finalized based on the revised curriculum for the first year
- The outcomes of the meeting will be placed before the BoS for the further discussion and recommendations.

Chairperson

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VIGNAN'S FOUNDATION FOR SCIENCE, TECHNOLOGY AND RESEARCH
Department of Advanced Computer Science & Engineering

Date: 22.03.2024

The Department of ACSE is delighted to invite you to a Board of Studies (BoS) meeting scheduled to review the B.Tech CSE – AIML program curriculum. The meeting will be held on 30.03.2024, from 11:00 AM onwards. The event will be conducted in a blended mode, offering both physical attendance and virtual participation. Venue for Physical Meeting: HoD ACSE Office Room, Sixth floor, N Block, VFSTR. Virtual Meeting Link: https://us06web.zoom.us/j/86478584479?pwd=hQsWzuaE4ZbActmMrNTHEKxcwx1aSb.1
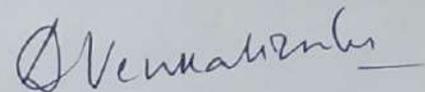
We request all members of the BTech-CSE AIML Board of Studies to make it convenient to attend, your presence and valuable inputs are essential for the success of this meeting.

S.No.	Name of the Member	Designation & Affiliation	Role
1	Dr. Venkatesulu Dondeti	Professor & Head, Department of ACSE, VFSTR Deemed to be University Contact: 91 98408 50744 Mail : hod_acse@vignan.ac.in	Chair Person
2	Dr B. Jyostna Devi	Associate. Professor, Department of ACSE, VFSTR Deemed to be University Contact: 91 73582 09553 Mail : bjd_acse@vignan.ac.in	Secretary (Ex-officio)
3	Prof. R.B.V Subramanyam	Professor Department of CSE, NIT, Warangal, Telengana Contact: 949 134 6969, 9441 434 454 Mail : rbvs66@gmail.com	External Member
4	Prof D. S Guru	Professor, Department of Studies in Computer Science, University of Mysore, Mysore, Karnataka Contact: 9620228005 Mail : daguruji@yahoo.com	External Member
5	Dr. Vinay Kumar Venkataramana	Co-Founder, IVIS LABS PRIVATE LIMITED, Mysore, Karnataka Contact : +91 6364411444 Email: vinay@ivislabs.com	Invited Member
6	Dr Arun Agarwal	Professor(Rtd), University of Hyderbad, Hyderabad. Contact: 9849283567 Mail : aruncs.211@gmail.com	Invited Member

7	Dr. Nirupama Bhat M	Professor, Department of ACSE, VFSTR Deemed to be University Contact: 91 99088 23834 Mail : drmnb_acse@vignan.ac.in	Internal Member
8	Dr. D. Radha Rani	Associate Professor, Department of ACSE, VFSTR Deemed to be University Contact: 91 96763 54404 Mail : drdrr_acse@vignan.ac.in	Internal Member (Nominee – Dean R&D)
9	Dr Bala Krishna S	Asst. Professor, Department of ACSE, VFSTR Deemed to be University Contact: 91 94415 40580 Mail : drsbk_acse@vignan.ac.in	Internal Member
10	Dr Arul Elango	Associate Professor, Department of ACSE, VFSTR Deemed to be University Contact: 6379772780, Mail : drae_acse@vignan.ac.in	Internal Member
11	Dr Brij Kishore Tiwari	Assistant Professor, Department of ACSE, VFSTR Deemed to be University Contact: 9094802494, Mail : drbkt_acse@vignan.ac.in	Internal Member

The primary agenda of this Board of Studies (BoS) meeting is to:

1. Analysis of the feedback collected from various stakeholders such as Alumni, Employers, Faculty, Parents and Students during the academic year 2022-23
2. Approval of R22 Revision-1, Review the proposed first-year course structure for the Revised R22 regulation
3. Finalize the course structure for the remaining courses.
4. Approval of NPTEL courses.
5. Approval of L-T-P structure change or any credit change courses, if any
6. Approval of Honor/minor/department elective/open elective courses, if any
7. Discussion of results-FA, SA, grades
8. Discussion of attainments process, rubrics, CO/PO/PSO and SO values.

(Chair Person)
Dr. Venkatesulu Dondeti

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VIGNAN'S FOUNDATION FOR SCIENCE, TECHNOLOGY AND RESEARCH
Department of Advanced Computer Science & Engineering

Date: 04.04.2024

Minutes of Board of Studies Meeting

Board of Studies (BoS) meeting of B.Tech., CSE-AIML programme was conducted on 30.03.2024 in blended mode from 11:00am to 1.00PM. (Physical meeting: HoD, ACSE cabin, Sixth floor, N Block, VFSTR and virtual meeting link:
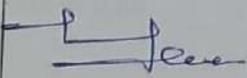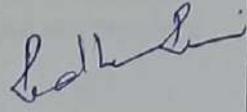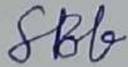
https://us06web.zoom.us/j/86478584479?pwd=hQsWzuaE4ZbActmMrNTHEKxcwx1aSb.1).

Agenda of the BoS Meeting:
1. Reviewing the course structure and content introduced in R22 regulation
2. Discussion on revision of Course contents.
3. Discussion on L-T- P-C structure of various courses.
4. Discussion on addition of the department electives, open electives and the fulfillment of pre-requisites for the department electives.
5. SWAYAM-NPTEL courses identification
6. Formative and summative assessment results
7. Discussion on CO-PO-PSO
8. Fixing the CO-PO-PSO-PEO target values
9. Any other points based on the requirements with the permission of Chair.

The following members were present either thorough offline or online:

S.No.	Name of the Member, Designation & Affiliation	Role	Signature
1	Professor & Head, Department of ACSE, VFSTR Deemed to be University Contact: 91 98408 50744 Mail : hod_acse@vignan.ac.in	Chair Person	*(signature)*
2	Dr B. Jyostna Devi, Associate. Professor, Department of ACSE, VFSTR Deemed to be University Contact: 91 73582 09553 Mail : bjd_acse@vignan.ac.in	Secretary (Ex-officio)	*(signature)*
3	Prof. R.B.V Subramanyam, Professor Department of CSE, NIT, Warangal, Telengana Contact: 949 134 6969, 9441 434 454, Mail : rbvs66@gmail.com	External Member	online
5	Dr. Vinay Kumar Venkataramana, Co-Founder, IVIS LABS PRIVATE LIMITED, Mysore, Karnataka, Contact: 6364 411 444	Invited Member	online

7	Dr. Nirupama Bhat M, Professor, Department of ACSE, VFSTR Deemed to be University, Contact: 91 99088 23834 Mail : drmnb_acse@vignan.ac.in	Internal Member	
8	Dr. D. Radha Rani, Associate Professor, Department of ACSE, VFSTR Deemed to be University Contact: 91 96763 54404 Mail : drdrr_acse@vignan.ac.in	Internal Member (Nominee – Dean R&D)	
9	Dr Bala Krishna S, Asst. Professor, Department of ACSE, VFSTR Deemed to be University Contact: 91 94415 40580 Mail : drsbk_acse@vignan.ac.in	Internal Member	

Dr Jyostna Devi Bodapati, Secretary, Member, BTech CSE-AIML program initiated the meeting by welcoming and introducing the board members and presented program curriculum along with course content to the board.

The following points were discussed in the BoS meeting:
1. Reviewed Revised R22 CSE-AIML program curriculum
2. Discussed on L-T- P-C structure of various courses.
3. SWAYAM-NPTEL courses identification for department, open electives and honors
4. Presented Formative and summative assessment results
5. Discussed on CO-PO-PSO
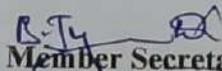6. CO-PO-PSO-PEO target values finalization

The following resolutions are incorporated after the discussion:
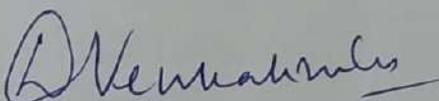1. The proposed draft version, prepared based on the revised curriculum for the first year, was presented by Dr. Jyostna to finalize the R22 CSE-AIML Curriculum. The External Board members expressed their opinion that the overall course structure of the program and the content of the courses are well-designed and sufficient for the undergraduate level. They provided a few suggestions to further improve the quality of the curriculum.

2. Prof. R.B.V Subramanyam suggested to offer Linear Algebra for Machine Learning course with the L-T-P-C structure of 3-0-2-4 during II-I and Probability Theory and Statistics for Machine Learning course with the L-T-P-C structure of 3-0-2-4 during II-II. This suggestion is accepted by the board as AIML programs require the knowledge of Mathematics along with Probability and statistics.

3. The introduction of the Data Science and Artificial Intelligence (DSAI) stream in GATE courses has led to the repositioning of core courses such as Compiler Design and Theory of Computation to elective courses. This proposal, put forth by internal members, has been approved by the board.

4. Prof. R.B.V. Subramanyam recommended to update the contents of the Data Warehousing and Data Mining course such that it is aligned with GATE Syllabus of the DSAI stream. This recommendation was accepted by the board and content of the course is updated with advanced data mining concepts such as web mining and Temporal mining topics in Module2.

5. Dr. Vinay Kumar Venkata Ramana suggested offering the Engineering Graphics course as part of the first year curriculum as it is important for AIML professionals in their careers. The same has been incorporated into the first-year curriculum.

6. After thorough discussions, the board suggested to consider the several SWAYAM-NPTEL courses, Value added courses and honors courses details of which are provided in the following sections.

7. At the end there was a discussion on Course Outcomes (CO), Program Outcomes (PO), Program Specific Outcomes (PSO), Formative Assessment results, Summative Assessment results, and the target values for CO-PO-PSO-PEO were decided.

Based on the suggestions given by the members, the Chairperson of BoS told that, these fruitful suggestions would be considered in the curriculum and syllabi of the revised R22 regulation.

There being no further points for discussion, the Chairperson thanks all the external, internal, invited members and announced that the meeting was adjourned.

Member Secretary

Chairperson

VIGNAN'S FOUNDATION FOR SCIENCE, TECHNOLOGY AND RESEARCH

Program: CSE – Artificial Intelligence and Machine Learning (AIML)　　　**Regulation:** R22

CURRICULUM STRUCTURE

I Year I Semester

Sl. No.	Course Code	Course Title	L	T	P	C	Course Category
1		Mathematics-I				4	Basic Sciences
2		Physics				4	Basic Sciences
3		Basics of Electrical and Electronics Engineering				3	Basic Engineering
4		Programming in C				4	Basic Engineering
5		IT Tools and Cyber Security				2	Basic Engineering
6		English Proficiency and Communication Skills(PET)				1	Humanities
7		Environmental Studies				3	Basic Engineering
8		Constitution of India				1	Audit Course
9		Orientation Session -1				1	Audit Course
10		Physical Fitness				1	Audit Course
		Total				**24**	
		Total				**24**	

L=Lecture; T= Tutorial; P= Practical; C=Credits

I Year II Semester

Sl. No.	Course Code	Course Title	L	T	P	C	Course Category
1		Mathematics-II				4	Basic Sciences
2		Chemistry				4	Basic science
3		Engineering Graphics				3	Basic Engineering
4		Python Programming				3	Basic Engineering
5		Technical English Communication				3	Humanities
6		Management Science				3	Professional core
7		Indian Knowledge Systems –Dept Specific				1	Audit Course
8		Orientation Session -2				1	Audit Course
		Universal Human Values				1	Audit Course
		Total				**23**	
		Total				**23**	

II Year I Semester

Sl. No.	Course Code	Course Title	L	T	P	C	Course Category
1		Linear Algebra for Machine Learning	3	2	0	4	Basic Sciences
2		Data Structures and Algorithms	3	0	2	4	Basic Engineering
3	22MT107	Discrete Mathematical Structures	2	2	0	3	Basic Sciences
4	22AM201	Artificial Intelligence Search Methods for Problem Solving	2	2	2	4	Professional core
5	22AM202	Digital Logic and Computer Organization	2	2	0	3	Professional core
6	22CS201	Database Management Systems	2	2	2	4	Professional core
7		Design Thinking & Engineering Orientation	0	2	0	1	Basic Engineering
8		Life Skills /UHV	0	0	2	1	Audit Course
		Total	14	12	8	24	
		Total		34		24	

II Year II Semester

Sl. No.	Course Code	Course Title	L	T	P	C	Course Category
1	22ST203	Probability Theory and Statistics for Machine Learning	3	0	2	4	Basic Sciences
2		Field Projects / IDP	0	0	2	1	Project
3	22AM203	Algorithm Design and Analysis	2	2	2	4	Professional core
4	22AM204	Machine Learning	3	0	2	4	Professional core
5	22AM205	Object Oriented Programming	2	0	4	4	Professional core
6		Open Elective – 1 (NPTEL)	3	0	0	3	Open Elective
		Total	13	2	12	20	
7		Minor / Honors – 1	3	0	2	4	
		Total	16	2	14	24	
		Total		32		24	

L=Lecture; T= Tutorial; P= Practical; C=Credits

III Year I Semester

Sl. No.	Course Code	Course Title	L	T	P	C	Course Category
1		BEC Certification	0	0	2	1	Humanities
2	22AM301	Deep Learning	3	0	2	4	Professional core
3	22CS303	Web Technologies	2	0	4	4	Professional core
4		Soft Skills Laboratory	0	0	2	1	Professional core
6		Industry Interface Course (Modular Course)	1	0	0	1	Binary Grades
7		Department Elective – 1	3	0	2	4	Department Elective
7		Department Elective – 2	2	0	2	3	Department Elective
8		Open Elective – 2	3	0	0	3	Open Elective
		Total	14	0	14	21	
10		Minor / Honors – 2	3	0	2	4	
		Total	17	0	16	25	
		Total		33		25	

III Year II Semester

Sl. No.	Course Code	Course Title	L	T	P	C	Course Category
1		Quantitative Aptitude & Logical Reasoning	0	2	0	2	Humanities
2	22AM402	Natural Language Processing	3	0	2	4	Professional core
3	22CS303	Computer Networks	3	0	2	4	Professional core
4	22CS207	Operating Systems	2	0	2	3	Professional core
5		Field Project / Inter-Disciplinary Project	0	0	2	1	Project
6		Department Elective – 3	3	0	2	4	Department Elective
7		Open Elective – 3	3	0	0	3	Open Elective
		Total	14	2	10	21	
8		Minor / Honors – 3	3	2	2	4	
		Total	17	4	12	25	
		Total		33		25	

L=Lecture; T= Tutorial; P= Practical; C=Credits

IV Year I Semester

Sl. No.	Course Code	Course Title	L	T	P	C	Course Category
1	22CS401	Cryptography and Network Security	3	0	2	4	Professional core
2	22AM401	Reinforcement Learning	2	0	2	3	Professional core
3		Department Elective – 4	3	0	2	4	Professional core
4		Department Elective – 5	3	0	2	4	Department Elective
5		Department Elective – 5	3	0	2	4	Department Elective
		Total	14	0	10	19	
6		Minor / Honors – 4	3	0	2	4	
		Total	17	0	12	23	
		Total		29		23	

IV Year II Semester

Sl. No.	Course Code	Course Title	L	T	P	C	Course Category
1	22AM403	Project Work	0	2	22	12	Project
		Total	0	2	22	12	
2		Minor / Honors – 5	0	2	6	4	
		Total	0	4	28	16	
		Total		32		16	

L=Lecture; T= Tutorial; P= Practical; C=Credits

LIST OF DEPARTMENT ELECTIVES

Sl. No.	Course Code	Course Title	L	T	P	C
1	22AM801	Cloud Computing	3	0	2	4
2	22AM802	Compiler Design	3	2	0	4
3	22AM803	Computer Vision	3	0	2	4
4	22AM804	Cryptography and Network Security	3	0	2	4
5	22AM805	Data Science using Python	2	2	2	4
6	22AM806	Data Warehousing and Data Mining	3	0	2	4
7	22AM807	Nature Inspired Computing Methods	3	2	0	4
8	22AM808	Soft Computing	3	2	0	4
9	22AM809	Introduction to Software Engineering	3	0	2	4
10	22CS810	Internet of Things	3	0	2	4
11	22CS801	Advanced Data Structures	2	2	2	4
12	22CS802	Advanced JAVA Programming	2	2	2	4
13	22CS803	Computer Graphics	2	2	2	4
14	22CS808	Mobile Application Development	2	0	4	4
15		Graph Theory				
16		Theory of Computation				
17		Fundamentals of Image Processing				
18		Game Theory				
19		Federated Machine Learning				
22		Artificial Neural Networks				

Honors Courses

Sl. No.	Course Code	Course Title	L	T	P	C
1	22AM951	Optimization Techniques	3	2	0	4
2		Data Handling and Visualization	3	2	0	4
3		Parallel and Distributed Computing	3	0	2	4
4	22AM960	Intelligent Application Development	3	2	0	4
5	22AM956	Capstone Project	0	2	6	4