Programme Matrix: Bachelor of Science – Internet of Things [2023 Batch]



FACULTY OF SCIENCE

Programme Matrix: Bachelor of Science - Internet of Things [2023 Batch]

Programme Outcomes

After successful completion of Bachelor of Science – Internet of Things programme, a student will be able to:

PO1: Integrate scientific temper; spirit of enquiry, humanism and reform

PO2: Apply scientific knowledge and skills ethically for societal development and entrepreneurship

PO3: Design, execute and interpret the results of experiments in Computer Science involving programming concepts, electronics components and designing techniques for IoT applications.

PO4: Appraise programming skills by implementing the structure and development methodologies of IoT.

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I Semester				
Course Type	Course Code	Course Title	Course Outcomes	
DSC	21BCA2T311	C Programming	 Understand the basic programming concepts to provide solutions for computational problems Implement programs using the concepts of operators, selection and iterative constructs Construct modular programs using arrays and strings Develop solutions for real world problems with derived data types Illustrate the usage of pointers and perform input/output operations on files. 	
DSC	21BCA2L211	C Programming Practical	 Develop C programs using sequential, conditional and iterative constructs Design programs using user defined and derived data types, string operations and functions in C language Apply structures, files and pointers in C Program. 	
DSC	23IOT2T311	Computer Organization and Design	 Describe the principle of Data Representation Discuss the concepts of logic gates Illustrate the issues in designing combinational circuits Explain the theory of sequential circuits Summarize the concepts of computer memory organization 	
DSC	23IOT2L211	Computer Organization and Design Practical	 Tabulate the truth table of logic circuits and universal gates Explain adder and subtractor circuits using basic gates Demonstrate encoder and decoder design concepts Explain the designing of flip-flops using universal gates Summarize the concepts of registers using flip-flops. 	
DSC	23IOT2T312	Fundamentals of IoT and Applications	 Understand the IoT architecture and its enabling technologies. Inspect the various applications of IoT. Analyze the IoT system management using NETCONF-YANG. Compare IoT Applications in Industrial & real world. Examine the IoT deployment models. 	
AECC	22ENG1T312	Musings in English Literature	 Articulate the relevant issues of society through the imbibed knowledge of prose Identify and appreciate nuances of poetry Implement the basic concepts of grammar and its usage. 	

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			• ಸಾಹಿತ್ಯದಲ್ಲಿ ಅಡಗಿರುವ ವಿವಿಧ ಸಾಮಾಜಿಕ ಮೌಲ್ಯ ಮತ್ತು ಜವಾಬ್ದಾರಿಗಳನ್ನು ಅರಿಯುವರು.
	21KAN1T312	Saahithya Sangama I	• ಭಾಷಾ ಕೌಶಲವನ್ನು ಅಭಿವೃದ್ಧಿ ಪಡಿಸಿಕೊಳ್ಳುವರು.
AECC			• ವಿದ್ಯಾರ್ಥಿಗಳು ತಮ್ಮ ಜೀವನದ ಸೃಜನಶೀಲತೆಯ ಮಹತ್ವವನ್ನು ಚರ್ಚಿಸುವರು.
			 ಹದಿಹರೆಯ ವಯಸ್ಸಿನ ಸಮಸ್ಯೆಗಳು ಹಾಗೂ ಪರಿಹಾರಗಳನ್ನು ವಿಶ್ಲೇಷಿಸುವರು.
			• ಜೀವನದಲ್ಲಿ ಮಾನವ ಪಡೆಯಬೇಕಾದ ಯಶಸ್ಸಿನ ಹಾದಿಯನ್ನು ವಿವರಿಸುವರು.
	21HIN1T312	TT. 1. 17 1 . D . 1 1 TT. 1.	 हिन्दी कहानी विधा का ज्ञान ग्रहण करने की क्षमता का विकास।
			2: विद्यार्थियों में सामाजिक यथार्थ और मुल्यांकन करने का विकास।
AECC			3: विद्यार्थियों में कहानी विधा का वर्णन करने की क्षमता का विकास।
			4: विद्यार्थियों में कहानी का विश्लेषण और भाषा कौशल में प्रवीणता।
AECC	22AEN1T311	Listening and Comprehension in English	 Identify the barriers to listening and describe the key components that contribute to effective listening Use their grammatical knowledge to refine their speech and writing Analyse complex human situations and challenges that emerge from the prescribed texts

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Course Type	Course Code	Course Title	Course Outcomes
DSC	21BCA2T321	Data Structures	 Understand dynamic memory management, recursive functions and data structures. Identify suitable sorting and searching algorithms for data structure applications Implement operations on linear data structures. Summarize the linked list concepts, operations and its application Construct tree data structure and perform its operations
DSC	23IOT2T321	Basic Electronics and Communication Systems	Understand the IoT architecture and its enabling technologies. Inspect the various applications of IoT. Analyze the IoT system management using NETCONF-YANG. Compare IoT Applications in Industrial & real world. Examine the IoT deployment models.
DSC	23IOT2L221	Basic Electronics and Communication Systems Practical	 Demonstrate the working of voltage regulators. Construct and understand the working of Transistor Understand the behavior of various digital communication systems.
	2310T2T322	Python Programming	 Design the efficient programs that take advantage of Python built- in capabilities Implement the various Python data structures. Analyze the large datasets and handle missing or inconsistent values. Understand the usage of Raspberry Pi with python.
DSC	231OT2L222	Python Programming Practical	 Understand the programming expertise in Python Develop Python program by defining function and calling them Implement Python lists, tuples, dictionaries for representing compound data.
AECC	22ENG1T322	Glimpses: Readings from English Literature	 Identify the themes and relevant issues through the study of prose and poetry Develop the skill to identify the pertinent themes and characters in the novel Implement new approaches in speaking and writing skills.
AECC	21KAN1T322	Saahithya Sangama II	1: ಸಾಹಿತ್ಯದಲ್ಲಿ ವ್ಯಕ್ತವಾಗಿರುವ ಮಾನವೀಯ ಮೌಲ್ಯಗಳನ್ನು ಅರಿಯುವರು 2: ಸಾಹಿತ್ಯದಲ್ಲಿ ಅಡಗಿರುವ ಸಾಮಾಜಿಕ ಮೌಲ್ಯಗಳನ್ನು ಅರಿಯುವರು. 3: ಯುದ್ಧದಿಂದಾಗುವ ಅನಾಹುತಗಳನ್ನು ಅರಿಯುವರು. 4: ಮಾನ್ಯವಿಲ್ಲದ ಜಾತಿ ಬೇಧಭಾವಗಳ ಬಗ್ಗೆ ಅರಿಯುವರು. 5: ಜೀವನ ಕೌಶಲವನ್ನು ಅಭಿವೃದ್ಧಿ ಪಡಿಸಿಕೊಳ್ಳುವರು.

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AECC	21HIN1T322	Hindi Kavitha aur Anuvaad Koushal	1: हिन्दी कविता का विश्लेषण एवं समझने की योग्यता का विकास। 2: विद्यार्थियों में सामाजिक यथार्थ और मूल्यांकन करने का विकास। 3: कविता में वर्णित कथा का वर्णन एवं काव्य सृजन करने का विकास। 4: अनुवाद एवं भाषा कौशल में प्राविण्यता।
AECC	22AEN1T321	Conversation Practice in English	 Acquaint students with listening skills and grammar. Enable students to analyse the prescribed texts based on relevant themes. Introduce students to varied genres of writing in English.
AECC	21EVS1T321	Environmental Studies	 Understand the concept of Environment and ecosystems Gain knowledge on various components controlling the stability of ecosystem Understand the Policies and laws pertaining to the welfare of life forms.

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