

Annual Report - April 2018 to March 2019

Activities of the VTU e-Learning Centre during April 2018 to March 2019 are stated below:

I. VTU EDUSAT Programme-24: 14th February, 2018 to 19th May, 2018

The Live telecast of the following 9 Subjects was done successfully which was well received and utilized by VTU affiliated colleges.

- 17MAT21 - Engineering Mathematics - II
- 17MAT21 - Engineering Mathematics - II
- 15MAT41 - Engineering Mathematics - IV
- 15CS42 - Software Engineering
- 15IS63/16MCA43 - Software Testing
- 15CV45 - Basic Geotechnical Engineering
- 15EC44 - Signals and Systems
- 15EE64 - Electrical Machine Design
- 15ME61 - Finite Element Methods
- 16MBA22 - Financial Management
- Soft skills by Glixcer Technologies

II. VTU e-Shikshana Programme-01: 25th February, 2019 to 10th May, 2019

The VTU e-Learning Centre was operational from its inception with the main aim of facilitating distance education and training to the students and faculty of VTU through satellite and web. Currently, VTU e-Learning Centre has migrated from satellite based EDUSAT programme to web based eShikshana programme. The live streaming of the following seven Subjects was done successfully which was well received and utilized by many VTU affiliated colleges.

- 18MAT21 - Advanced Calculus and Numerical Methods
- 18ELN24 - Basic Electronics
- 17CV43 - Applied Hydraulics
- 17ME43 - Applied Thermodynamics
- 17EE61 - Control Systems
- Placement and Training classes were transmitted on every Saturday.
- Career Guidance Programme (On Saturdays)

III. Additional activities

- a) Video recording of four days workshop on AICTE Model Curriculum, details of the date and venue are shown in below table

Date	Venue
07/05/2018	Bangalore Institute of Technology, Bengaluru
08/05/2018	Bangalore Institute of Technology, Bengaluru
09/05/2018	BNM Institute of Technology, Bengaluru
14/05/2018	M S Ramaiah Institute of Technology, Bengaluru

- b) Video coverage of workshop on AICTE Model Curriculum at Sahyadri College of Engineering & Management, Mangalore on 19.05.2018
- c) Video recording of one day workshop on AICTE Model Curriculum for Architecture board at VTU Regional Office, Bengaluru on 08.06.2018.
- d) Video recording of Student Project Exhibition on 28th June, 2018 at VTU, Belagavi
- e) Video recording of 20th Foundation day Celebration on 29th June, 2018 at VTU, Belagavi.
- f) Video recording of TEQIP sponsored “**Faculty Enrichment Program**” on Mechanics of Materials from 23/07/2018 to 27/07/2018 at VTU PG Centre, Belagavi.
- g) Video recording of TEQIP sponsored “**Faculty Enrichment Program**” on Discrete Mathematical Structures from 27/07/2018 to 31/07/2018 at VTU PG Centre, Kalaburagi.
- h) Video coverage of one day workshop on New AICTE Model Curriculum at BNM Institute of Technology, Bengaluru on 06th August 2018.
- i) Video recording and Live Streaming of Tech VC’s Conclave 2018 on 23rd and 24th November, 2018 at Lalit Ashok Hotel, Bengaluru.
- j) Video recording of 18th Annual Convocation on 18th March 2019 at VTU, JnanaSangama Campus, Belagavi

- k) Video recording of 48th ISTE Convention on 19th & 20th March 2019 at VTU, JnanaSangma Campus, Belagavi.

IV. Orientation Programme to e-Shikshana Facilitated Colleges

An advanced online training was provided to the coordinators of VTU e-Shikshana facilitated colleges from 15th to 28th May 2018. Around 168 VTU affiliated colleges have been benefitted from this training programme.

V. MoU with Amrita Vishwa Vidyapeetham

VTU entered into Memorandum of Understanding with Amrita Vishwa Vidyapeetham on 09th July 2018 to make use of the AVIEW platform service.

VI. e-Content Management System Portal:

VTU e-Learning Centre has been recording the video of lectures rendered by the Professors through VTU EDUSAT Programme and has now have the e-content repository of about 210 courses of 2006, 2010 and CBCS schemes and NPTEL courses. The VTU e-Learning center initiated to host available e-contents under VTU domain for the benefit of student community. The developed tool uses the newly developed e-content streaming software for efficient searching and indexing. About 210 courses developed by VTU and NPTEL courses are made available as additional references for the benefit of student and research community. The content has been hosted according directions received by the e-Learning studio committee. The deployed e-contents can be accessed at <http://nptel.vtu.ac.in/econtent>.

This technology will create a new wave of notional view on Technology Enhanced Learning features. The students can access the videos of subjects of their choice anytime and anywhere in the network environment. The VTU e-Learning Centre will keep on developing videos of various courses through its e-Shikshana programme and make it available in this portal subsequently. List of e-Contents hosted in e-Content Management System are shown in below table

Sl.No.	Disciplines	Courses
1.	Automobile Engineering	Theory and Design of Automotive Engines
2.	Basic Courses	Basic Electronics
3.		Basic Electrical Engineering
4.		Engineering Physics Lab
5.		Engineering Chemistry Lab
6.		Welding Practice
7.		Programming in C and Data Structures
8.		Computer Concepts and C Programming
9.		Computer Concepts and C Programming Lab
10.		Elements of Civil Engineering and Engg Mechanics
11.		Physics
12.		Basic Electronics (Web)
13.		Basic Electrical Engineering (Web)
14.		Programming in C and Data Structures (Web)
15.		Basic Electronics - 2018 Scheme
16.	Biotechnology	Clinical Biotechnology
17.		Food Biotechnology
18.		Human Physiology
19.		Structural Biology
20.		Bioprocess Principles and Calculations
21.		Genetic Engineering & Application
22.	Civil Engineering	Geotechnical Engineering - I
23.		Geotechnical Engineering - II
24.		Design of Steel Structures
25.		Fluid Mechanics
26.		Concrete Technology
27.		Design of RCC Structural Elements
28.		Fluid Mechanics
29.		Earthquake Resistant Design of Structures

30.		Advanced Concrete Technology
31.		Strength of Materials
32.		Basic Geotechnical Engineering
33.		Fluid Mechanics
34.		Structural Analysis -II
35.		Design and Drawing of RC Structures
36.		Strength of Materials (Web)
37.		Basic Geotechnical Engineering (Web)
38.		Fluid Mechanics (Web)
39.		Solid Dynamics
40.		Ground Water Hydrology
41.		Probability Methods in Civil Engineering
42.		Geotechnical Measurements & Explorations
43.		Applied Hydraulics
44.	Computer Science and Engineering	Data Structure With C
45.		Graph Theory & Combinatorics
46.		Analysis and Design of Algorithms
47.		Computer Organization
48.		System Software
49.		Compiler Design
50.		Computer Graphics & Visualization
51.		Programming the web
52.		Advanced Computer Architectures
53.		Software Architecture
54.		Logic Design
55.		Database Management System
56.		Computer Networks - II
57.		Analog & Digital Electronics
58.		Introduction to Linux Operating System
59.		Network Programming Lab
60.		Software Testing
61.		Information and Network Security
62.		Object Oriented Modeling and Design
63.		Microprocessors & Microcontrollers

64.		Discrete Mathematical Structure
65.		Software Engineering
66.		Automata Theory and Computability
67.		Biometrics
68.		Computational Geometry
69.		Design Verification and Test of Digital VLSI Circuits
70.		Fundamentals of Database Systems
71.		Cryptography and Network Security
72.		Low Power VLSI Circuits & Systems
73.		Real Time Systems
74.		High Performance Computing
75.		Performance Evaluation of Computer Systems
76.		Compiler Design
77.		Graph Theory
78.		Computer Networks
79.		Finite Automata and Formal Languages
80.		Unix and Shell Programming
81.		Analog and Digital Electronics Laboratory
82.		Data Structures and Applications Laboratory
83.		Formal Languages and Automata Theory
84.		Computer Architecture
85.		Numerical Optimization
86.		Software Engineering (Web)
87.		Automata Theory and Computability (web)
88.		Microprocessors & Microcontrollers (Web)
89.		Analog & Digital Electronics (Web)
90.	Electricals and Electronics Engineering	Modern Control Theory
91.		Electrical Machine Design
92.		Power System and Operational Control
93.		Micro Controllers
94.		Field Theory
95.		DC Machines and Synchronous Machines

96.		Analog Electric Circuits
97.		Electric Circuit Analysis
98.		Computer Aided Electrical Drawing
99.		Electric and Electronic Measurement and Instrumentation
100.		Analog Electric Circuits
101.		Computer Techniques in Power Systems
102.		Power System Analysis and Stability
103.		Power System Dynamics and Control
104.		Advanced Control Systems
105.		An Introduction to Electronics Systems Packaging
106.		High Voltage DC Transmission
107.		Electric Circuit Analysis (Web)
108.		Control Systems
109.	Electronics and Communication Engineering	Signals and Systems
110.		Analog Electronics Lab
111.		Logic Design Lab
112.		Digital Signal Processing
113.		Fundamentals of CMOS VLSI
114.		Antenna and Propagation
115.		Analog Electronic Circuits
116.		CMOS VLSI Design
117.		Analog Communication
118.		Micro Electronic Circuit
119.		Digital Image Processing
120.		Analog Electronics
121.		Electrical Circuit Analysis
122.		Digital Image Processing
123.		DSP Algorithm and Architecture
124.		Network Analysis
125.		Analog Electronics
126.		Digital System Design Using VHDL
127.		Analog and Mixed Mode VLSI Design
128.		Digital Communications Theory

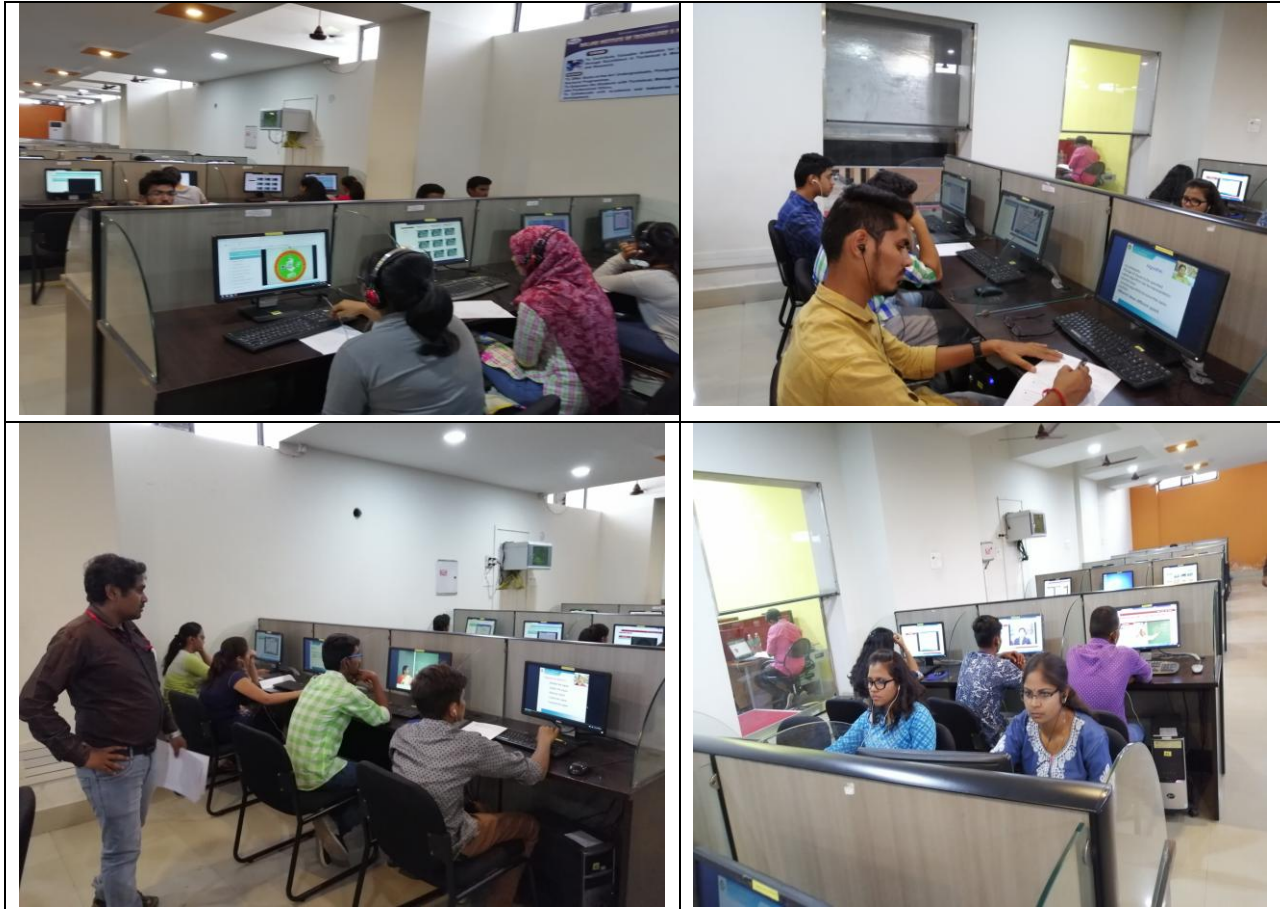
129.		Power Electronics
130.		Digital Switching
131.		Embedded Software Testing
132.		Pattern Recognition and Neural Networks
133.		Error Correcting Codes
134.		Advanced 3G and 4G Wireless Communication
135.		Network Analysis (Web)
136.		CMOS VLSI Design (Web)
137.		Fundamentals of CMOS VLSI (Web)
138.		Analog Electronics (Web)
139.	Industrial Automation	Programmable Logic Circuits
140.	Industrial Production Engineering and Management	Supply Chain Management
141.		Operations Management
142.		Operations Research
143.		Quality Assurance and Reliability
144.	Instrumentation Technology	Process Control
145.		8086 Microprocessor and Peripherals
146.	Management	Financial Management
147.		Quantitative Methods - II
148.		Quantitative Techniques
149.		Information Technology for Managers
150.		Statistics for Management
151.		Organization Management
152.		Six Sigma
153.		International Finance
154.		Strategic Management - The Competitive Edge
155.	Mathematics	Engineering Mathematics-4
156.		Engineering Mathematics-4
157.		Engineering Maths - IV
158.		Engineering Mathematics-III
159.		Advanced Mathematics-II
160.		Advanced Mathematics-II
161.		Engineering Mathematics-II

162.		Engineering Mathematics-II
163.		Complex Analysis
164.		Applied Multivariate Analysis
165.		Calculus of Variations and Integral Equation
166.		Linear Programming and Its Extensions
167.		Discrete Mathematics
168.		Engineering Maths - IV (Web)
169.		Engineering Mathematics-II (Web)
170.		Advanced Calculus and Numerical Methods
171.	Mechanical Engineering	Basic Thermodynamics
172.		Applied Thermodynamics
173.		Fluid Mechanics
174.		Turbo Machines
175.		Design Of Machine Elements-II
176.		Modeling And Finite Element Analysis
177.		Mechanical Vibrations
178.		Manufacturing Process - III
179.		Mechanical Measurements And Metrology
180.		Dynamics Of Machines
181.		Finite Element Methods
182.		Kinematics of Mechanics
183.		Convective Heat and Mass Transfer
184.		Cryogenic Engineering
185.		Computer Aided Engineering Design
186.		Physics of Materials
187.		Control Engineering
188.		Applied Thermodynamics 2017 Scheme
189.	Faculty Enrichment Programme	Mathematics - 2
190.		Mechanics of Materials
191.		Signals and Systems
192.		Power System Analysis
193.		Design and Analysis of Algorithms
194.		Strength of Materials

195.		Research Methodology and Thesis Writing using Latex
196.		Discrete Mathematical Structures
197.	CXO Speaks	Special Talk on Aerospace & Defence Domain?
198.		What College didn't Teach Me?
199.		Industry Experts Talk
200.		Soft Skills by Glixcer Technologies
201.		Aptitude Training by JV Global
202.		Sanitation and Environmental Awareness by Ecowatch
203.		Intel Special Lecture Series Programme
204.		Special Lectures on Multicore Technologies
205.		Meditation and Yoga from S N Omkar, IISc, B'lore
206.		MSP430 Design -- Lectures Series from Texas Instrumentation, B'lore
207.		Lecture Series by CoreEL Technologies
208.		IBM Rational Seed Programme
209.		Nokia Lecture Series
210.		SUN Certification Lecture Series

VII. Sharing of e-Contents

VTU e-Learning Centre for the first time has deployed VTU e-Content Management System comprising of 205 VTU and NPTEL e-Contents on a CAMPUS LAN under the theme e-Vidya at Ballari Institute of Technology and Management, Ballari on 05th - 06 March, 2018. The e-Contents have been accessed by the students and faculties on the college LAN as well as handheld devices of wifi enabled campus.



e-Contents accessing by the students in BIET Campus via LAN

Video contents of VTU and NPTEL have been shared to the following colleges, on request to the faculties of Bapuji Institute of Engineering and Technology, Davanagere and Adichunchanagiri Institute of Technology, Chikkmangaluru.

VIII. Workshops/Webinars Conducted/ Training Programme:

- a) VTU e-Learning Centre has organized a Two-day workshop on **MOODLE** for the benefit of the faculty and the students on 24th and 25th April, 2018 at HKBK College of Engineering, Bengaluru.



Inauguration of two day Moodle Workshop

- b) VTU e-Learning Centre has live transmitted the inaugural function and two day International conference on “Innovations in Engineering Technology and Sciences - ICIETS 2018” through VTU e-Shikshana Programme on 20th and 21st September, 2018 organized by NIE Institute of Technology, Mysuru.
- c) VTU e-Learning Centre has organized three day workshop on VTU Thesis and Research Paper Writing using LaTeX in association with Shri Dharmasthala Manjunatheshwara Institute of Technology, Ujire on 24th and 25th September 2018 for the benefit of research scholars and PG Students. The focus of the workshop is on writing and structuring a thesis/dissertation
- d) VTU e-Learning Centre has live transmitted the presentation of Maj. Gen. Charles Frank Bolden, Jr., Ex - Administrator, NASA, USA through VTU e-Shikshana Programme on 07.03.2019 organized by MSRIT, Bengaluru
- e) VTU e-Learning Centre has organized a live interaction with Vice Chancellor and Registrar on interactive e-Learning platform under the theme “Interact with VC” through VTU e-Shikshana Programme on 12.03.2019 from VTU Belagavi.

IX. VTU-NPTEL Local Chapter

VTU e-Learning Centre, Mysuru has setup VTU-NPTEL Local chapter on November 2015. The objective is to create awareness and enable students to obtain certification on different subjects, which makes them more employable or helps them to pursue higher education. The enrollment details for NPTEL MOOC courses in shown in below table.

#	Semesters	Courses Offered	Enrollments
1	January - June 2018	228	1248
2	July December 2018	269	1080
3	January - June 2019	302	1298

X. Online IPR Programme

VTU e-Learning Centre in association with Origin IP Academy, Bengaluru has launched an online course on Intellectual Property Rights (IPR) to make the VTU faculty/students to learn various skills needed for research and development. Around 15 candidates have completed the online certification course on IPR.

* * * * *