



2.3

Problem-solving methodologies

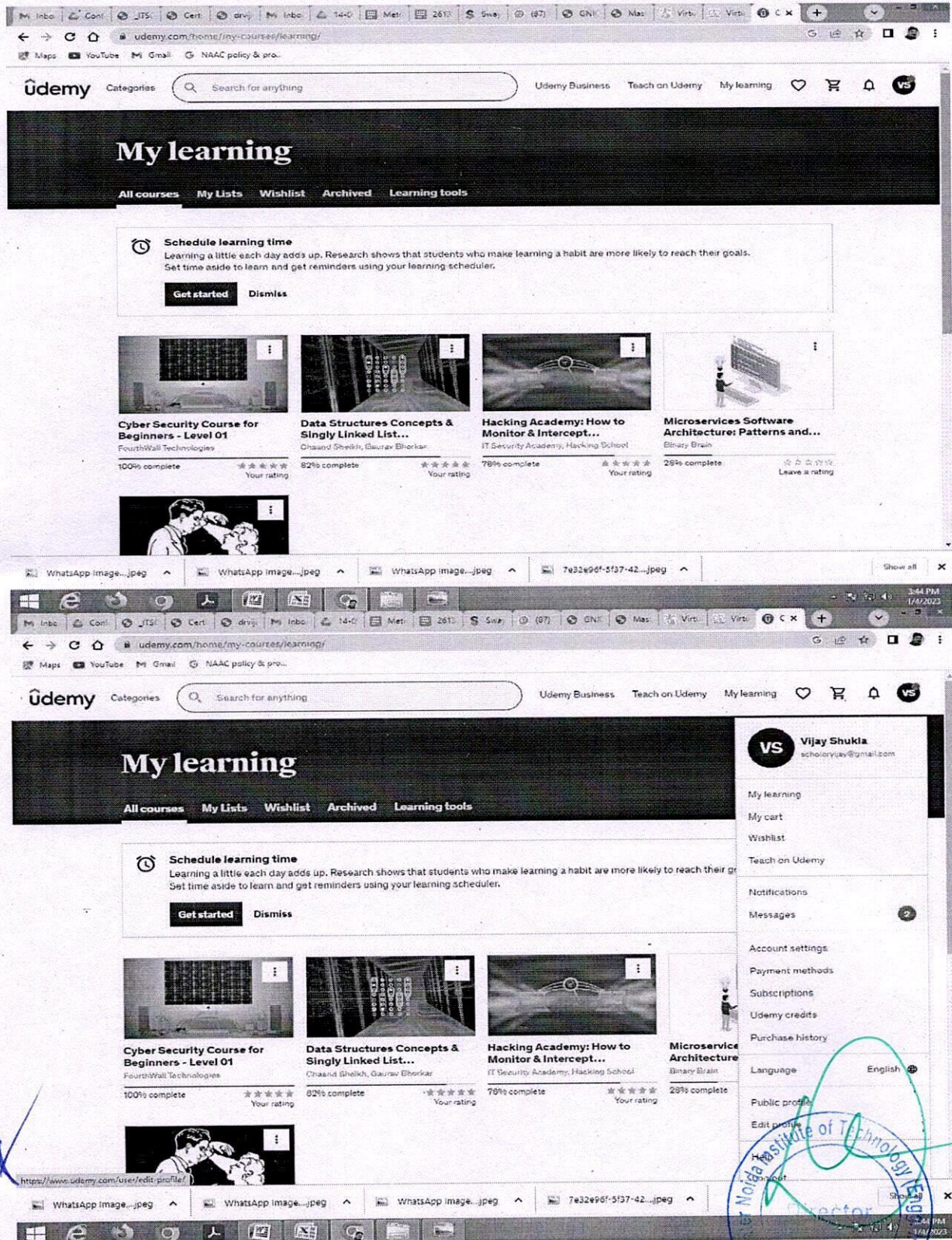
Greater Noida Institute of Technology (Engg. Institute)

**Plot No. 7, Knowledge Park II, Greater Noida
Uttar Pradesh 201310 India**

S. No.	Content
3	Problem Solving Methods
	Classroom equipped with ICT tools
	Value added courses
	Virtual Labs
	Spoken Tutorial Software E-Resources for learning
	Accessing EBooks from College ERP: http://gnioterp.com:155/ManageBookUpload.aspx
	Accessing University Question Papers from College ERP: http://gnioterp.com:155/ManageQuestionPaperUpload.aspx
	Projectors: projectors are available in different classrooms/labs
	Desktop and Laptops-Arranged at computer labs, faculty cabins all over the campus
	Photocopier machines- Multifunctional printers are available at prominent places in the Institute.
	Scanners-Multifunctional printers are available at prominent places
	Digital Library Resources (DEL NET, MYLOFT etc)
	Online ERP System for the support of Teaching Learning Process
	Seminar Rooms- Seminar halls are equipped with all digital facilities
	Boardroom- Board room for conducting regular meeting is available with all digital facilities



Value Added Courses on Latest Technologies



The screenshot displays the Udemy 'My learning' dashboard. At the top, there's a navigation bar with 'Udemy', 'Categories', a search bar, and links for 'Udemy Business', 'Teach on Udemy', 'My learning', and a shopping cart. Below this, the 'My learning' section includes tabs for 'All courses', 'My Lists', 'Wishlist', 'Archived', and 'Learning tools'. A 'Schedule learning time' notification is present, encouraging daily learning habits. The main area features a grid of course recommendations, each with a thumbnail, title, instructor, and progress/rating information. The courses shown are: 'Cyber Security Course for Beginners - Level 01' (100% complete), 'Data Structures Concepts & Singly Linked List...' (82% complete), 'Hacking Academy: How to Monitor & Intercept...' (78% complete), and 'Microservices Software Architecture: Patterns and...' (29% complete). A sidebar on the right shows the user profile for 'Vijay Shukla' with links to 'My learning', 'My cart', 'Wishlist', 'Teach on Udemy', 'Notifications', 'Messages', 'Account settings', 'Payment methods', 'Subscriptions', 'Udemy credits', 'Purchase history', 'Language' (set to English), 'Public profile', and 'Edit profile'.

MOOCs Certification Program

This certificate is computer generated and can be verified by scanning the QR code given below. This will display the certificate from the NPTEL repository. <https://nptel.ac.in/noc/>

Roll No: NPTEL19CS69551370290

To
 VIJAY SHUKLA
 F-423, AV/ HEIGHTS, SECTOR-2/ETA-1,
 GREATER NOIDA (UP)-201310
 GREATER NOIDA
 GAUTAM BUDDHA NAGAR
 UTTAR PRADESH
 201310
 Pin. NO. 20131020204



Score	Type of Certificate
>=90	Dist+Gold
75-89	Dist+Silver
>=60	Dist
40-59	Successfully Completed
<40	No Certificate

No. of credits recommended by NPTEL-3

An additional 1 credit may be awarded if the University deems it fit, based on the actual student effort involved.



NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)



This certificate is awarded to

VIJAY SHUKLA

for successfully completing the course

Software Engineering

with a consolidated score of **43** %

Online Assignments 10.00/25 Proctored Exam 33/75

Total number of candidates certified in this course: 476

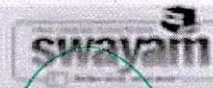
Jul-Oct 2019
(12 week course)

A. Goswami

Prof. Adrijit Goswami
 Exam Co-ordinating Professor & NPTEL Coordinator
 IIT Kharagpur



Indian Institute of Technology Kharagpur



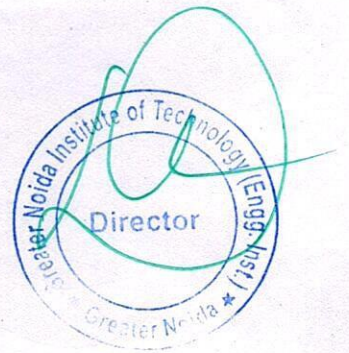
Roll No: NPTEL19CS69551370290

To validate and check scores: <https://nptel.ac.in/noc/>

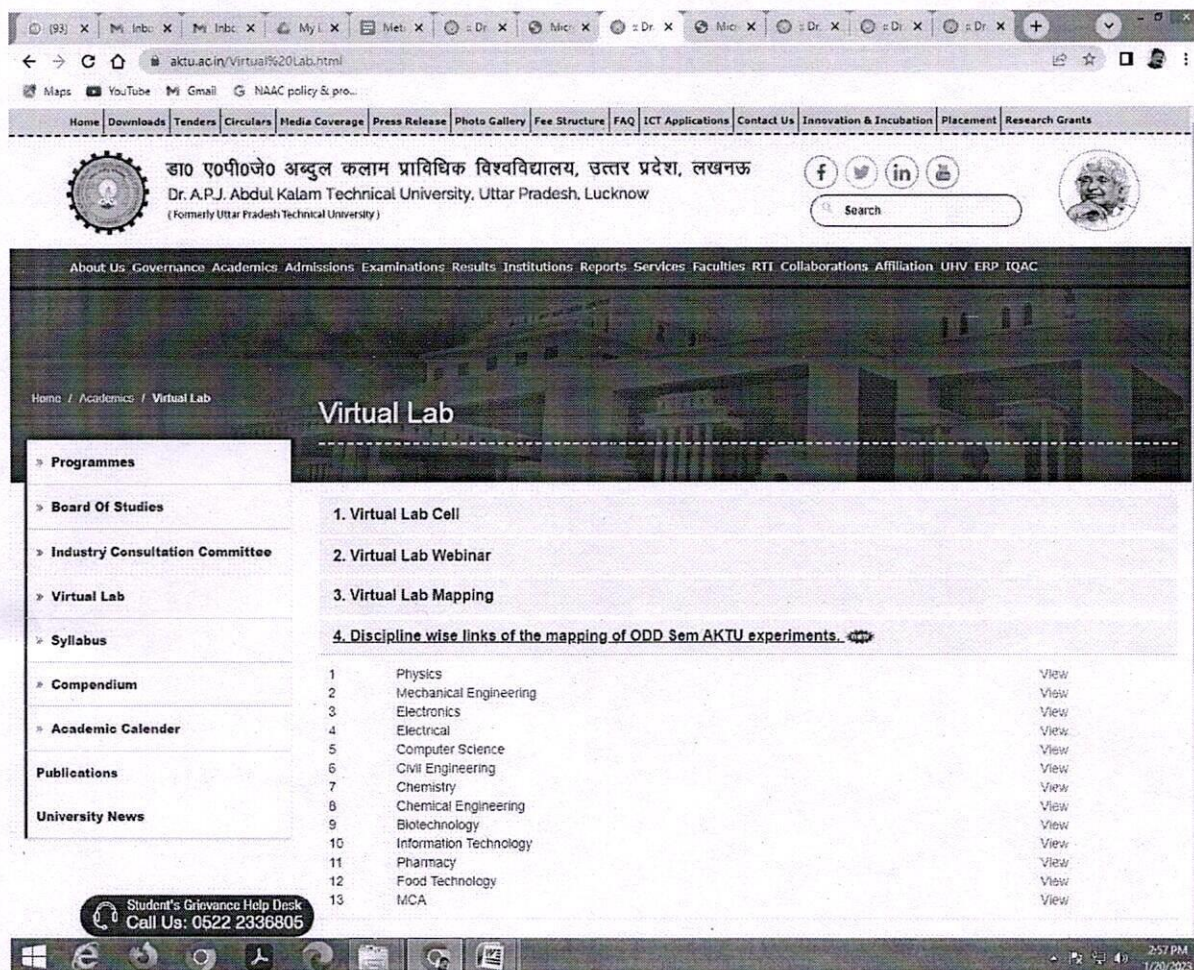


Participation in simulated events such as hackathons where students acquire experience of working on some real life model

Institute organizes mini Hackathons in which students showcase their talent with their working model of projects from time to time. Our students of 07 teams have participated at all India level in the SIH-2022 and one team lead by Mr. Prashant Kumar, student of CSE-4th Year on a project named **"The Beyond Infinity"** has been selected for the grand finale of the SMART INDIA HACKATHON scheduled on 25th August 2022 at SCMS School of Technology & Management, Ernakulam, Kerala. Finally our team was runner up in the track.



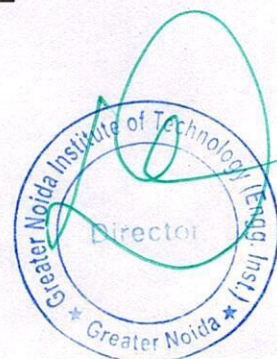
Virtual Labs



The screenshot shows the GNIOT Virtual Labs website. The header includes the GNIOT logo and navigation links: Home, Downloads, Tenders, Circulars, Media Coverage, Press Release, Photo Gallery, Fee Structure, FAQ, ICT Applications, Contact Us, Innovation & Incubation, Placement, Research Grants. Below the header, there is a banner for Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow. The main content area is titled 'Virtual Lab' and lists various programs and resources. A sidebar on the left contains links to Board Of Studies, Industry Consultation Committee, Virtual Lab, Syllabus, Compendium, Academic Calender, Publications, and University News. The main content area lists 13 disciplines with links to view their respective virtual lab cells.

Discipline	View
1. Physics	View
2. Mechanical Engineering	View
3. Electronics	View
4. Electrical	View
5. Computer Science	View
6. Civil Engineering	View
7. Chemistry	View
8. Chemical Engineering	View
9. Biotechnology	View
10. Information Technology	View
11. Pharmacy	View
12. Food Technology	View
13. MCA	View

<https://drive.google.com/file/d/1bxF5SkX-DvP3pCkEpKV5bA7nSdj6j3zn/view>

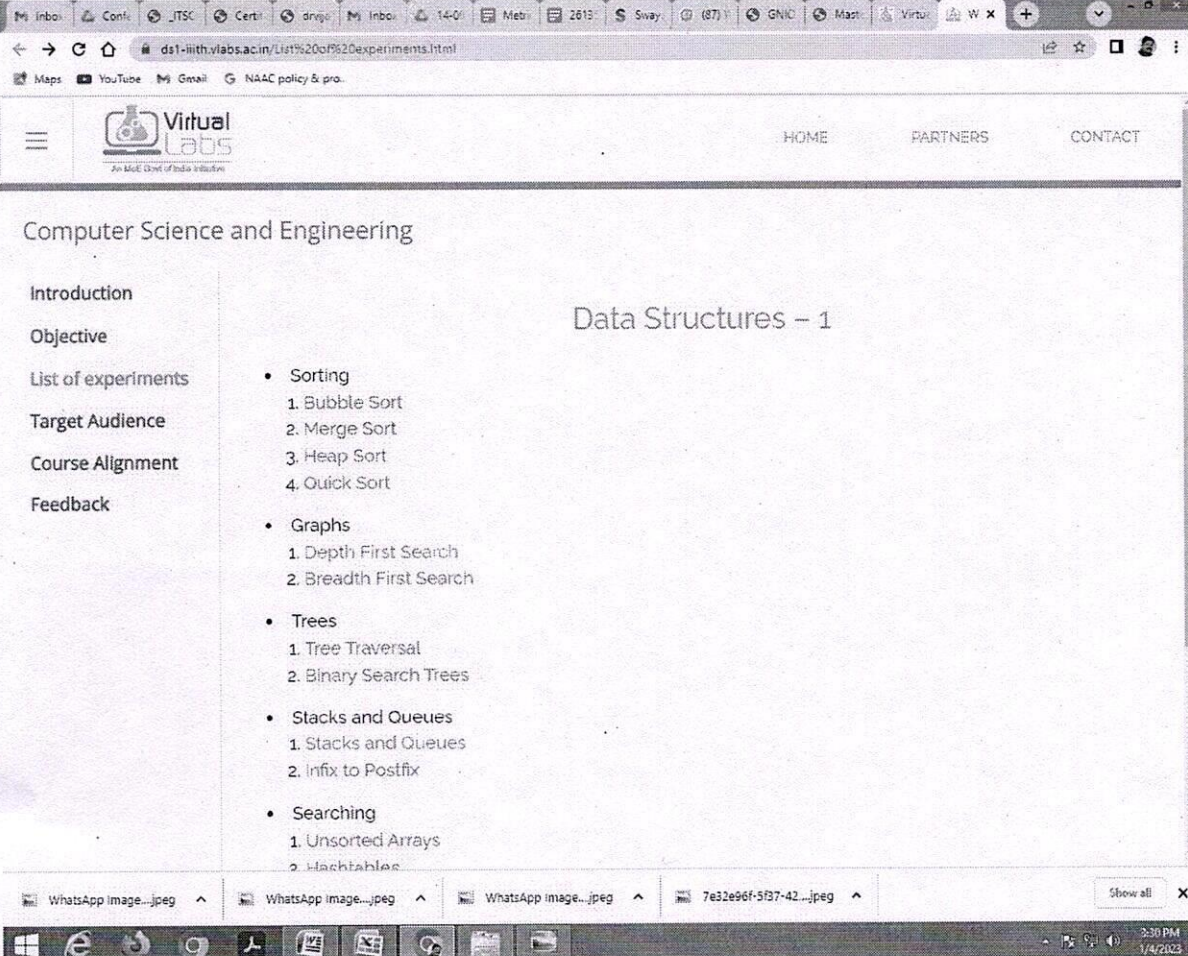


Computer Science_AKTU Virtual Lab Mapping.xlsx

S.No.	LAB CODE	Lab Practical	Virtual Lab Link	Alternate Lab Link	Comment
1	KCS-101/KCS-201	WAP that accepts the marks of 5 subjects and finds the sum and percentage marks obtained by the student.	Under Development (eBOOTHON01)		
2	KCS-101/KCS-201	WAP that calculates the Simple Interest and Compound Interest. The Principal, Amount, Rate of Interest and Time are entered through the keyboard.	Under Development (eBOOTHON03)		
3	KCS-101/KCS-201	WAP to calculate the area and circumference of a circle.	Under Development (eBOOTHON03)		
4	KCS-101/KCS-201	WAP that accepts the temperature in Centigrade and converts into Fahrenheit using the formula $C/5 = F/9$.	Under Development (eBOOTHON03)		
5	KCS-101/KCS-201	WAP that swaps values of two variables using a third variable.	Under Development (eBOOTHON03)		
6	KCS-101/KCS-201	WAP that checks whether the two numbers entered by the user are equal or not.	Proposed in a bootathon 04		
7	KCS-101/KCS-201	WAP to find the greatest of three numbers.	Under Development (eBOOTHON03)		
8	KCS-101/KCS-201	WAP that finds whether a given number is even or odd.	Proposed in a bootathon 04		
9	KCS-101/KCS-201	WAP that tells whether a given year is a leap year or not.	Under Development (eBOOTHON03)		
10	KCS-101/KCS-201	WAP that accepts marks of five subjects and finds percentage and prints grades according to the following criteria: Between 90-100% — Print 'A' 80-90% — Print 'B' 70-80% — Print 'C' Below 60% — Print 'D'	Under Development (eBOOTHON03)		
11	KCS-101/KCS-201	WAP that takes two operands and one operator from the user and perform the operation and prints the result by using Switch statement.	Under Development (eBOOTHON03)		

ODD SEM EVEN SEM

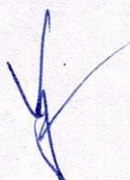
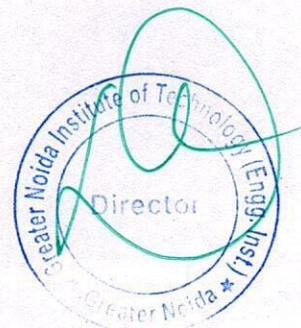


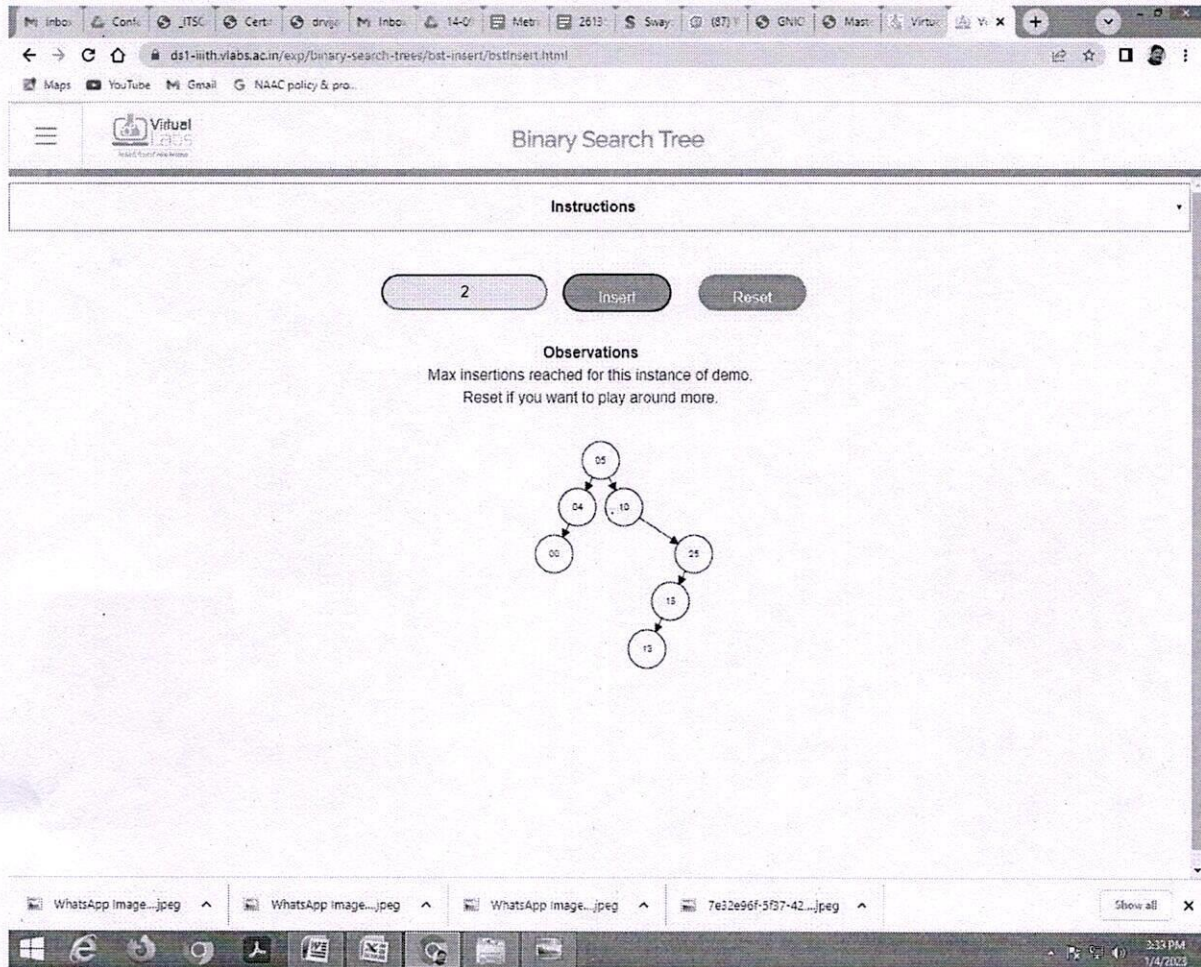


The screenshot shows a web browser window displaying the Virtual Labs website. The URL bar shows 'ds1-nith.vlabs.ac.in/List%20of%20experiments.html'. The website has a navigation bar with 'HOME', 'PARTNERS', and 'CONTACT' links. The main content area is titled 'Computer Science and Engineering' and 'Data Structures - 1'. On the left, there is a sidebar with links: 'Introduction', 'Objective', 'List of experiments', 'Target Audience', 'Course Alignment', and 'Feedback'. The main content area lists various topics and their sub-topics:

- Sorting
 1. Bubble Sort
 2. Merge Sort
 3. Heap Sort
 4. Quick Sort
- Graphs
 1. Depth First Search
 2. Breadth First Search
- Trees
 1. Tree Traversal
 2. Binary Search Trees
- Stacks and Queues
 1. Stacks and Queues
 2. Infix to Postfix
- Searching
 1. Unsorted Arrays
 2. Hash Tables

The bottom of the screenshot shows a Windows taskbar with several open applications, including WhatsApp and a file explorer, and a system clock showing 2:30 PM on 1/4/2023.



Binary Search Tree

Instructions

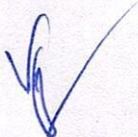
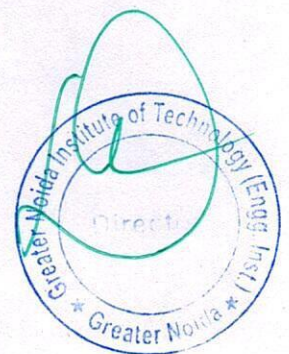
2 Insert Reset

Observations

Max insertions reached for this instance of demo.
Reset if you want to play around more.

```

graph TD
    05((05)) --> 04((04))
    05 --> 10((10))
    04 --> 00((00))
    10 --> 12((12))
    12 --> 15((15))
    10 --> 25((25))
  
```

Spoken Tutorial Software E-Resource for learning

Syllabus Mapping of AKTU_3.pdf

Syllabus Mapping for AKTU University		
Department/Year	Course Name	Spoken Tutorial Software E-Resource for learning
B.Tech All Departments		
First Year	RCS101/RCS201 - Computer System and Programming in C	C, C++
	RCE 151/ RCE 251 -Computer Aided Engineering Graphics	GIMP, Inkscape
B.Tech - IT Department		
2 nd Year	RCS-305: DATA STRUCTURES USING-C	C, C++
	RCS-35: DATA STRUCTURES USING-C / Java	C, C++, Java
	RCE - 151 -Computer Aided Engineering Graphics	GIMP, Inkscape, QCAD
	RCS - 451 - Operating Systems Lab	Linux & Ubuntu
	RCS - 454 - Python Language Programming Lab	Python
3 rd Year	NCS-502 Database Management System	MYSQL
	NCS- 503 Principle of Programmirg Language	JAVA and Netbeans
	NCS- 504 Web Technology	PHP, Perl, Drupal
	NIT-063 - Bioinformatics	Biopython
4 th Year	NOE- 074 Introduction to Bio Technology	CellDesigner, Biopython
	NCS - 752 - Project	LaTeX - Useful for technical writing in projects
	NIT - 751 - CRYPTOGRAPHY AND NETWORK SECURITY LAB (using 'C')	C

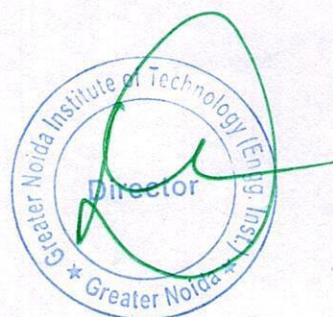
Spoken Tutorial Software E-

Resource for learning

aktu.ac.in/pdf/Syllabus%20Mapping%20of%20AKTU_3.pdf

Syllabus Mapping of AKTU_3.pdf

B. Tech. (Computer Science and Engineering / Computer Engineering & Information Technology)		
2 nd Year	RCS-305: DATA STRUCTURES USING-C	C, C++
	RCS-35: DATA STRUCTURES USING-C / Java	C, C++, Java
	RCE - 151 - Computer Aided Engineering Graphics	GIMP, Inkscape, QCAD
	RCS - 451 - Operating Systems Lab	Linux & Ubuntu
	RCS - 454 - Python Language Programming Lab	Python
3 rd Year	NCS-502 Database Management System	MySQL
	NCS- 503 Principle of Programming Language	C, C++
	NCS- 504 Web Technology	PHP, Perl, Drupal
	NCS- 505 Computer Architecture	-Introduction to Computers (ICT) -LibreOffice Suite
4 th Year	NOE- 074 Introduction to Bio Technology	CellDesigner, Biopython
	NCS - 751 - DISTRIBUTED SYSTEM LAB ('UNIX' platform, using 'C++', Java program)	Unix, C++, Java Programming
	NCS - 752 - Project	LaTeX - Useful for technical writing in projects
B. Tech. (Chemical Engineering)		
2 nd Year	NCH303:FLUID MECHANICS	OpenFoam
3 rd Year	NCH011 - Computational Fluid Dynamics	OpenFoam
	NCH554 - FLOW SHEETING LAB (using a simulation package/ programming environment)	DWSIM - Chemical process simulator, Openmodelica



Electronics & ICT Academy
ict.iitk.ac.in

Ministry of Electronics & Information Technology
Government of India



Certification Course On Python Programming

This is to certify that

Dr. / Mr. / Ms. **Satyam Giri** of
Greater Noida Institute of Technology, Gautam Buddh Nagar has

completed the Certification Course conducted by E & ICT Academy,
Indian Institute of Technology, Kanpur.



Date of Issue: 30-12-2019

System Identification No.: 23107-30

Prof. B. V. Phani

E & ICT Coordinators

Prof. Amey Karkare





Electronics & ICT Academy

ict.iitk.ac.in

Ministry of Electronics & Information Technology
Government of India



Certification Course On Computer System Security

This is to certify that



Dr. / Mr. / Ms. Krishna Mohan
of Greater Noida Institute of Technology, Gautam Buddh Nagar has

completed the Certification Course conducted by E & ICT Academy,
Indian Institute of Technology, Kanpur.

18.12.22

Prof. B. V. Phani

Prof. Amey Karkare

Amey Karkare

E & ICT Coordinators



Date of Issue: 30-12-2019

System Identification No.: 22049-43



डॉ० ए०पी०जे० अब्दुल कलाम प्राविधिक विश्वविद्यालय, उत्तर प्रदेश

Sector- 11, Jankipuram Vistar Yojna, Sitapur Road, Lucknow (U.P.) 226031

E-Mail Id: deanugseoffice@aktu.ac.in, dean.ugse@aktu.ac.in

पत्रांक : ए०के०टी०यू० / डीन यू०जी० / 2020 / 433

दिनांक: 22 अक्टूबर, 2020

सेवा में,

निदेशक/प्राचार्य

डॉ० ए०पी०जे० अब्दुल कलाम प्राविधिक विश्वविद्यालय उत्तर प्रदेश

से सम्बद्ध अभियंत्रण संस्थाएं।

विषय: विश्वविद्यालय में संचालित बी०टेक० पाठ्यक्रम के द्वितीय वर्ष में शैक्षिक सत्र 20-21 के तृतीय सेमेस्टर में Non Credit Courses KNC301/KNC302 के सम्बन्ध में।

महोदय,

उपर्युक्त विषयक विश्वविद्यालय के पत्र संख्या ए०के०टी०यू० / पी०नि०का० / 2020 / 3968 दिनांक 27 जुलाई, 2020 एवं पत्र संख्या ए०के०टी०यू० / डीनयू०जी० / 2020 / 428 दिनांक 21 अगस्त, 2020 द्वारा सत्र 2020-21 में समस्त पाठ्यक्रमों में अध्ययनरत छात्र/छात्रों की आन लाइन कक्षाएँ 04 अगस्त, से कराने के निर्देश दिये गये हैं। उक्त के कम में सत्र 2019-20 की भाँति सत्र 2020-21 में बी०टेक० पाठ्यक्रमों की तृतीय सेमेस्टर के छात्र/छात्राओं के लिए Non Credit Courses KNC301/KNC302 (Computer System Security/Python Programming) MOOCs (ICT, IIT, Kanpur) से कराये जाने का निर्णय लिया है कि समस्त विवरण ICT, IIT, Kanpur को पंजीकरण हेतु डाटा उपलब्ध करा दिया गया है। ICT, IIT, Kanpur द्वारा छात्रों का पंजीकरण कर Non Credit Courses KNC301/KNC302 का संचालन कराया जा रहा है।

आप से निवेदन है कि अपने स्तर से फ़ैकल्टी कोडिनेटर एवं शिक्षको को भी कोर्स में आन-लाइन पंजीकरण कराने हेतु निर्देशित करने का कष्ट करें। यह भी अवगत कराना है कि कतिपय किसी कारण वश सत्र 2019-20 में KNC301/KNC302 विषय में Fail हो गये हैं या परीक्षा में सम्मिलित नहीं हुए छात्रों को सत्र 2020-21 में पुनः ICT, IITK पंजीकरण कराने के निर्देश देने का कष्ट करें, साथ ही साथ संस्थान स्तर में सभी विधाओं में छात्रों के पठन-पाठन का स्तर बढ़ाने के लिए विश्वविद्यालय के वेबसाइट पर उपलब्ध सैलेबस के अनुसार छात्रों को पढ़ाने की व्यवस्था में शिक्षकों को नामित करने का भी कष्ट करें।

ICT, IITK द्वारा यह भी अवगत कराया गया है कि 5 सप्ताह बाद भी कुछ संस्थाओं के 50 प्रतिशत से अधिक छात्रों द्वारा पंजीकरण नहीं किया है। (सूची संलग्न) ICT, IITK पर Weekly assignments पर आधारित अंकों को विश्वविद्यालय के इन्टर्नल मार्क से मैप किया जायेगा। जो छात्र ICT के माध्यम से अपना पंजीकरण नहीं करायेगें उनको Internal Sessional अंक विषय में शुन्य अंक माने जायेगें। किन्तु ऐसे छात्र विश्वविद्यालय की सेमेस्टर परीक्षा में सम्मिलित हो सकेंगे। Non Credit Courses KNC301/KNC302 की सेमेस्टर परीक्षा विश्वविद्यालय द्वारा विश्वविद्यालय की अन्य परीक्षाओं के साथ विश्वविद्यालय के परीक्षा पैटर्न पर सम्पन्न करायी जायेगी।

कृपया उपरोक्त संबंध में अपेक्षा है कि संस्थान के सभी आच्छादित छात्र/छात्राओं को सूचित कराने तथा आवश्यक कार्यवाही करने का कष्ट करें।

भवदीय

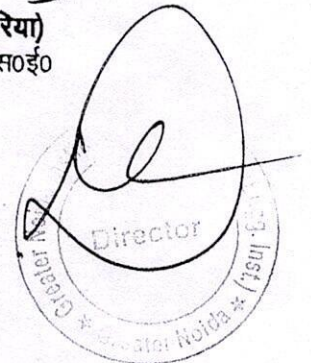
(प्रो० सुबोध वैरिया)

डीन०यू०जी०एस०ई०

पृष्ठांकन सं० एवं दिनांक: उपरोक्त।

प्रतिलिपि- निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

1. प्रति कुलपति, ए०के०टी०यू०, लखनऊ।
2. कुलसचिव, ए०के०टी०यू० लखनऊ।
3. परीक्षा नियंत्रक, ए०के०टी०यू० लखनऊ।
4. समन्वयक, आई०सी०टी०, आई०आई०टी०, कानपुर।
5. स्टाफ आफिसर मान कुलपति कार्यालय ए०के०टी०यू० लखनऊ।



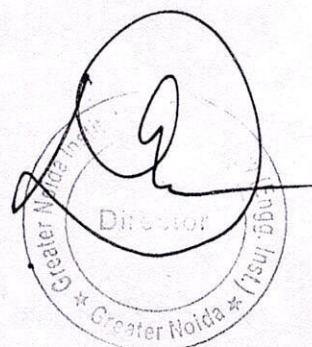
(प्रो० सुबोध वैरिया)

अधिष्ठाता स्नातक

डॉ० ए०पी०जे० अब्दुल कलाम प्राविधिक विश्वविद्यालय, लखनऊ २०२०

1. All the Colleges/Institute Single Point of Contact/Coordinator (SPOC) have been given a dashboard on Prutor.ai to monitor the logins and quiz submissions of their students.
2. (SPOC) can also nominate teachers or HOD for the courses. These teachers can also see the logins and quiz submissions of their students.
3. The SPOC can change the email id of the students (only on prutor.ai) in case there is an error.
4. The SPOC can also change the branch of the student (only on prutor.ai) in case there is a change.
5. A list of the Colleges/Institute, from where less than 50% students have logged in so far for KNC301 or KNC 302 courses being run by ICT, IITK is given below.

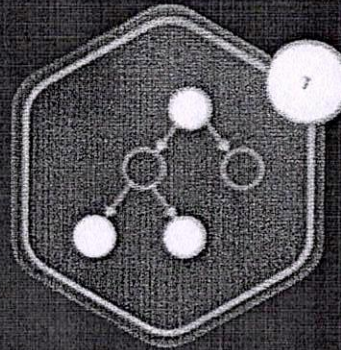
College Code	Potential Student logins	Actual Student logins	Percentage
7	8	3	38%
44	169	12	7%
46	150	62	41%
126	60	4	7%
132	650	315	48%
141	51	1	2%
194	55	23	42%
196	52	25	48%
221	41	6	15%
222	420	194	46%
256	20	0	0%
285	57	22	39%
310	22	9	41%
331	31	1	3%
338	27	0	0%
339	48	1	2%
358	263	128	49%
360	477	146	31%
362	133	20	15%
363	308	149	48%
364	20	3	15%
370	62	29	47%
373	69	8	12%
380	11	0	0%
430	18	8	44%
447	11	0	0%
465	56	17	30%
467	167	78	47%
472	175	84	48%
473	396	194	49%
475	8	0	0%
483	42	12	29%
487	61	12	20%
493	110	41	37%
496	23	8	35%
498	481	181	38%
499	19	6	32%
521	104	1	1%
524	152	61	40%
527	77	2	3%
529	24	10	42%
541	5	0	0%
547	40	1	3%
640	88	10	11%
648	108	53	49%
705	32	7	22%
754	78	0	0%
780	13	5	38%
781	23	0	0%
783	164	74	45%
796	80	2	3%
799	21	3	14%
815	21	1	5%



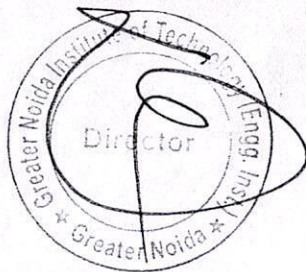
22/11/20

Congratulations

You have earned a new badge



Algorithms
Level 7

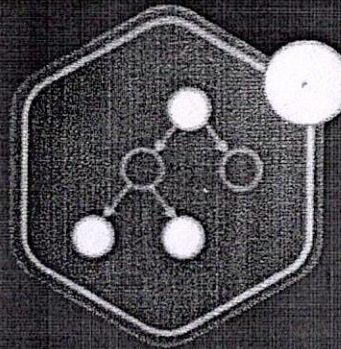


Keep up the good work!
Solve more problems to unlock Level 8

Abit CSE 3rd year

Congratulations

You have earned a new badge



Algorithms
Level 6

Keep up the good work!

Solve more problems to unlock Level 7

