"CYBER SECURITY" CERTIFICATION COURSE"



GRADUATE SCHOOL OF ENGINEERING AND TECHNOLOGY

OFFERED

"CYBER SECURITY CERTIFICATION COURSE"

Course Coordinator:



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www.set.gtu.ac.in

Course Enquiry Link:



https://forms.gle/eqq2HpbECXqrdnoc9

Background

Gujarat Technological University is a premier academic and research institution which has driven new ways of thinking since its 2007 founding, established by the Government of Gujarat vide Gujarat Act No. 20 of 2007.GTU-Gradaute School of Engineering and Technology is the department of GTU, approved by AICTE and runs Post Graduate Programs as Masters of Engineering in cyber security, Artificial Intelligence & Data Science, Structure Engineering and Internet of Things in Engineering.

Key Features

- 30 hours of online and offline classes.
- Real time case studies of cyber crime.
- Capstone Project handle security problem. and achieving compliance.
- community with cyber Experts,
- Experienced cyber experts from companies and faculties (More than 5 year experience)

Course Structure

- Duration: 30 Hrs (Weekend Courses)
- Max seat: 15 per sesssion
- Course Fees: Rs 10,500 +18% GST
- Theory and Practical sessions
- Credit: 02

About the Course

This course provides an introduction to cyber security, covering topics such as system . security, network security, web application security, incident response and handling. It also teaches essential information security skills to protect and secure critical information and technology assets. It includes theory, case studies, practical exposure to the latest domain of cyber security, career opportunities, Security Operations Center (SOC) Analyst knowledge, Capture The Flag (CTF), Bug Bounties, and Open Source Intelligence for Law Enforcement Agency. Learners will gain skills in VAPT and learn how to protect websites by securing data and information, finding vulnerabilities. sensitive data exposure, architecting cloud-based security,

Career Opportunities

- Cyber Security Analyst
- Penetration and Vulnerability Tester
- Cyber Crime Analyst
- Computer Forensics Analyst
- Incident Responder
- Security Engineer
- Internships in various State Police

Time Duration

- Total duration of 30 hours.
 - 150 minutes session- 2 sessions/weekend

WHY TO JOIN?

At the end of the Program participants would have strong understanding of following areas:

- Digital Forensics Investigation.
- System and Network Security.
- Open Source Intelligence (Useful for Law Enforcement Agency).
- Vulnerability Assessment and Penetration Testing.
- Security Operations Center(SOC)
- Certified Ethical Hacking Modules
- Computer Hacking and Forensics Investigation
- Bug Bounty Hunting
- Windows and Linux server security

Eligibility

All participants from any stream are eligible for the course.

Cyber Security Certification Course

System and Network Security:

Basics of Cyber Security fundamentals, Advanced tools used in committing cybercrime, IT Act 2000, Case study-IP Tracing, Introduction to virtual machines used for pentesting, Different OS for cyber security.

Incident Handling and Response:

Cert-In Incident report form, Case study for high profile attacks, Plan for incident response, Identify threats using host, network, and log analysis, Introduction to Malware

Ethical Hacking and Bug Bounty Hunting:

CEHModules:Footprinting, Enumeration, Reconnaissance, Introduction to mobile malware, Android dangerous permission Scanning,



VAPT and Web Application Security:

OWASP Top 10, Webserver attack and Defence with Secure web configurations and secure coding, types of web attacks, Website defacement, case study for server hacking, Social Engineering



CHFI Modules: , Disk Forensics, Live Forensics, Dark Web Forensics, VoIP Communication Protocols with the case study, VPN, Email Forensics

Introduction - Security Operational Center And Web Server Security:

Splunk, IBM Security QRadar, L1-L2-L3 SOC Analyst, Linux Server, Windows server IIS, Active Directory, Server log analysis, Attacks on the server, VPS security.



Set-up of kali Linux, virtual box, Vulnerable OS, Advance Hardware for Cyber Crime-Raspberry Pi, Rubber Ducky, Information gathering tools, Password cracking techniques, tools and countermeasures, Hak5 Kit

Incident Handling and Response:

Creation and testing of malware, Malware Static and dynamic analysis, Tools for identification of malicious process for ransomware, Advance IP Scanner, Nmap, SIFT, Various SANS OS

Ethical Hacking and Bug Bounty Hunting:

Reverse engineering of mobile application using tools. Static and dynamic analysis of android applications, tools for footprinting, scanning and enumeration, system hacking.



VAPT and Web Application Security

Burb suite, Acunetix, Tools for website information gathering, Live demonstration of Phishing attack, Cryptography, Password Cracking and Website log analysis

Computer Forensics and Mobile Forensics:

FRED, Belkasoft, Autopsy, UFED, Magnet Axiom, FTK Imager, packet capture tool, Social Engineering tools, Analysis of Dark web forums and leaked data, tools for VPN identification.

Introduction to Security Operational Center and Web Server Security

Active SOC tools, Security configurations for Web Server Active Directory, Domain Controller, Apache Log Analysis, Attacks on SSH, web and database server

GUJARAT TECHNOLOGICAL UNIVERSITY GRADUATE SCHOOL OF ENGINEERING AND TECHNOLOGY

Offered

Certificate Course

In

"Cyber Security Certification Course"



Gujarat Technological University
Graduate School of Engineering and Technology
Academic Block-5, GTU Campus, Chandkheda Ahmedabad

Website: www.set.gtu.ac.in

Contact: +91-7202838264

Certification Course in Cyber Security

Background:

Gujarat Technological University is a premier academic and research institution which has driven new ways of thinking since its 2007 founding, established by the Government of Gujarat vide Gujarat Act No. 20 of 2007.GTU-GSET is a constituent institute of GTU approved by AICTE and runs five Post Graduate Programs in Engineering.

About the Course

This course will teach you the most effective steps to understand the basics of cyber security which relates to system security, Network Security, Web Application Security and Incidence Response and Handling. Organizations are going to be targeted, so they must be prepared for eventual compromise.

It also provide the essential information security skills and techniques which helps to protect and secure your critical information and technology assets, whether on-premise or in the cloud.

This course comprises of theory, case studies practical exposure in the field of the latest domain of the cyber security, the career opportunities, Security Operations Center (SOC) Analyst, knowledge of Capture The Flag (CTF), Bug Bounties, information to crack the certification courses from EC-Council (CEH & CHFI) and Open Source Intelligence for the Law Enforcement Agency. Learner will master the skills of VAPT and learn how to protect the websites by securing data and information, finding critical vulnerabilities, sensitive data exposure, architecting cloud-based security, and achieving compliance.

Goals

- 1. To transform the basic IT skills into the cyber security era by what to do, How to do and When to do it in reference to handling the incident of cyber attack.
- 2. To gain knowledge and skills required for the Infrastructure and other organizations in the cyber security domain.

Key Features of the Certification course in Cyber Security

• Online and Offline Classes

30 hours of instructor-led online and offline classes.

Content

Chosen from best cyber security Global certifications.

Applied Learning

20+ hours of Applied Learning.

Certification

"Certificate of participation will be issued by Gujarat Technological University".

Projects

Capstone Project to handle security problem.

Community

Cyber Experts, Law Enforcement Agency, Researchers.

<u>Learning Kit</u>

E-books Learning Kit.

<u>Faculty</u>

Experienced cyber experts from companies and faculties with more than 5 years of experience in cyber security.

Time Duration

- 30 hours of online and offline classes.
- 150 minutes session 2 sessions per day (Weekend).

Course Outcome:

- 1. Basic understanding of what digital evidence is and what can be found by analyzing digital Evidence. Incident Response Procedures- identifying, gathering, and preserving digital evidence with a proper chain of custody.
- 2. Identification of vulnerability in the Web and Database Application.
- 3. Evaluate the teaming concept for the penetration testing of the system and network.
- 4. Apply skills for the reverse engineering of android applications and malware.
- 5. Create a capstone project for the security problems in system and network.

Eligibility:

• All participants from any stream are eligible for the course.

Course Structure:

Duration: 30 Hrs Weekend Courses.

• Max seat: 15 per session

Theory and Practical sessions

• Course Fees: Rs 10,500 +18% GST

• Credit: 02

Career Opportunities:

- Cyber Security Analyst
- Penetration and Vulnerability Tester
- Cyber Crime Analyst
- Computer Forensics Analyst
- Incident Responder
- Security Engineer
- Internships in various State Police

Syllabus:

Cyber Security Course Details: *The course will run in Online and offline mode from at Weekends.

Day	Session	Topic		
Day 1	Session 1 (10:00 AM- 12:30 PM)	System and Network Security: Basics of Cyber Security fundamentals, Advanced tools used in committing cyber-crime, IT Act 2000, Case study-IP Tracing, Introduction to virtual machines used for pentesting, Different OS for cyber security.		
	Session 2 (02:00 PM to 04:30 PM)	Hands-on set-up of kali Linux, virtual box, Vulnerable OS, Advance Hardware for Cyber Crime-Raspberry Pi, Rubber Ducky, Information gathering tools, Password cracking techniques, tools, and countermeasures	2.5 Hrs	
Day 2	Session 1 (10:00 AM- 12:30 PM)	Incident Handling and Response: Cert-In Incident report form, Case study for high profile attacks, Plan for incident response, Identify threats using host, network, and log analysis, Introduction to Malware		
	Session 2 (02:00 PM to 04:30 PM)	Hands on testing a malware, Malware creation and dynamic analysis, Tools for identification of malicious process for ransomware, Advance IP Scanner, Nmap	2.5 Hrs	
Day 3	Session 1 (10:00 AM- 12:30 PM)	VAPT and Web Application Security: OWASP Top 10, Webserver attack and Defence with Secure web configurations and secure coding, types of web attacks, Website defacement, case study for server hacking, Social Engineering, Phishing	2.5 Hrs	
	Session 2 (02:00 PM to 04:30 PM)	Hands-on burb suite, Tools for website information gathering and Website log analysis	2.5 Hrs	

Day 4	Session 1 (10:00 AM- 12:30 PM)	Computer Forensics and Mobile Forensics: CHFI Modules, Disk Forensics, Live Forensics, Dark Web Forensics, VoIP Communication Protocols with the case study, VPN, Email Forensics	
	Session 2 (02:00 PM to 04:30 PM)	Hand-on different packet capture tools, Social Engineering tools, Analysis of Dark web forums and leaked data, tools for VPN identification.	2.5 Hrs
Day 5	Session 1 (10:00 AM- 12:30 PM)	Ethical Hacking and Bug Bounty Hunting: CEH Modules, Introduction to mobile malware, Android dangerous permission	
	Session 2 (02:00 PM to 04:30 PM)	Hands-on reverse engineering of mobile application using tools. Static and dynamic analysis of android applications Safety measures for mobile devices	2.5 Hrs
Day 6	Session 1 (10:00 AM- 12:30 PM)	Introduction to Security Operational Center: Splunk, IBM Security QRadar, L1-L2-L3 SOC Analyst, Linux Server, Windows server IIS, Active Directory, Server log analysis, Attacks on the server, VPS	2.5 Hrs
	Session 2 (02:00 PM to 04:30 PM)	Hands-on Active SOC tools, Directory configurations, Apache Log Analysis, Attacks on SSH, web and database server.	2.5 Hrs

Evaluation:

Through different modes like submission of assignments, Mid-course and end course examination.

Certification:

Certificate will be awarded to successful students who will attend at least 80% of scheduled activities and qualify the examination.

Why to join the cyber security certification course?

At the end of the Program participants would have strong understanding of following areas:

- Digital Forensics.
- Network Security.
- Open Source Intelligence (Useful for Law Enforcement Agency).
- Vulnerability Assessment and Penetration Testing.
- IT ACT 2000

Course Enquiry Link:

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Course Coordinator:

Prof. Deepak Upadhyay ap_deepak@gtu.edu.in +91-7202838264



Gujarat Technological University Graduate School of Engineering and Technology

Payment Guidelines

For

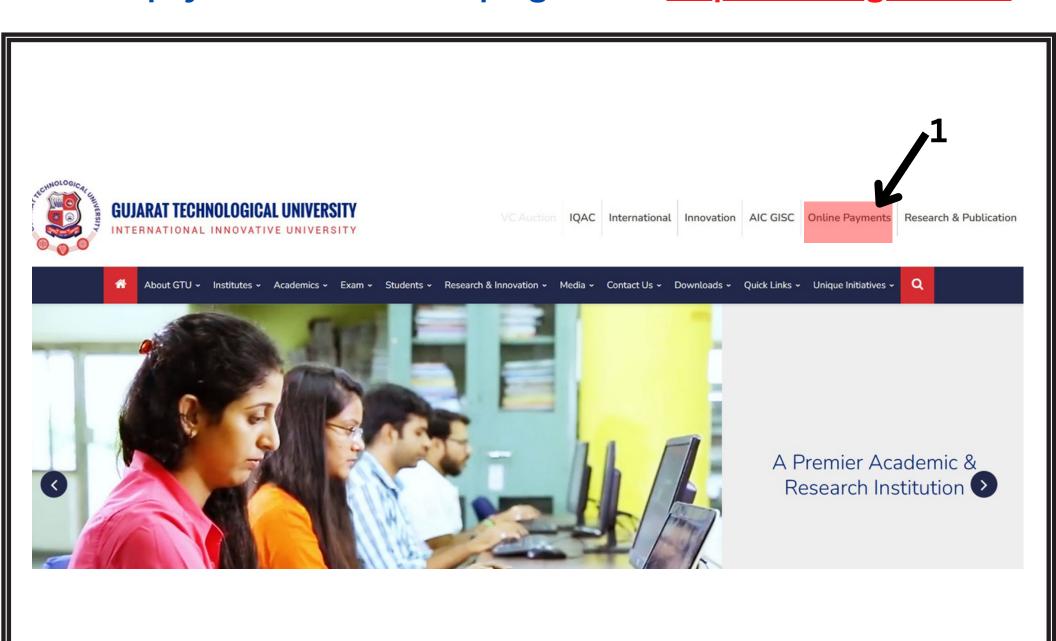
"Cyber Security Certification Course"

Course Registration Link:

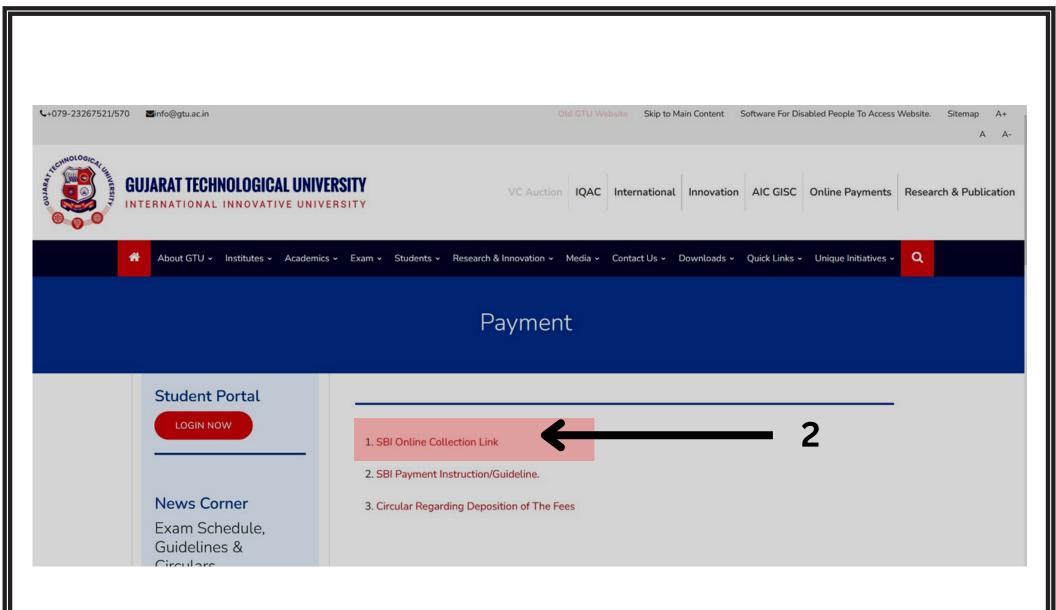




Step-1: Open website of Gujarat Technological University and select online payment tab at the top right side. https://www.gtu.ac.in/



Step-2: Select SBI Online Collection Link

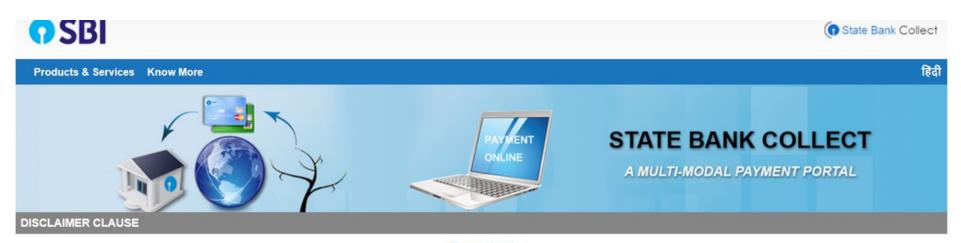


Step-3: Click on the URL

https://www.onlinesbi.sbi/sbicollect/icollecthome.htm

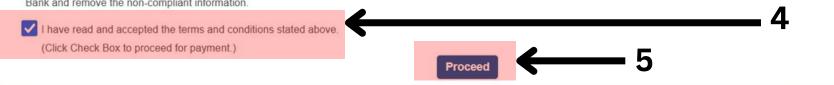


Step-4: Select The Checkbox to Proceed for Payment and then click on Proceed Button



Terms Used

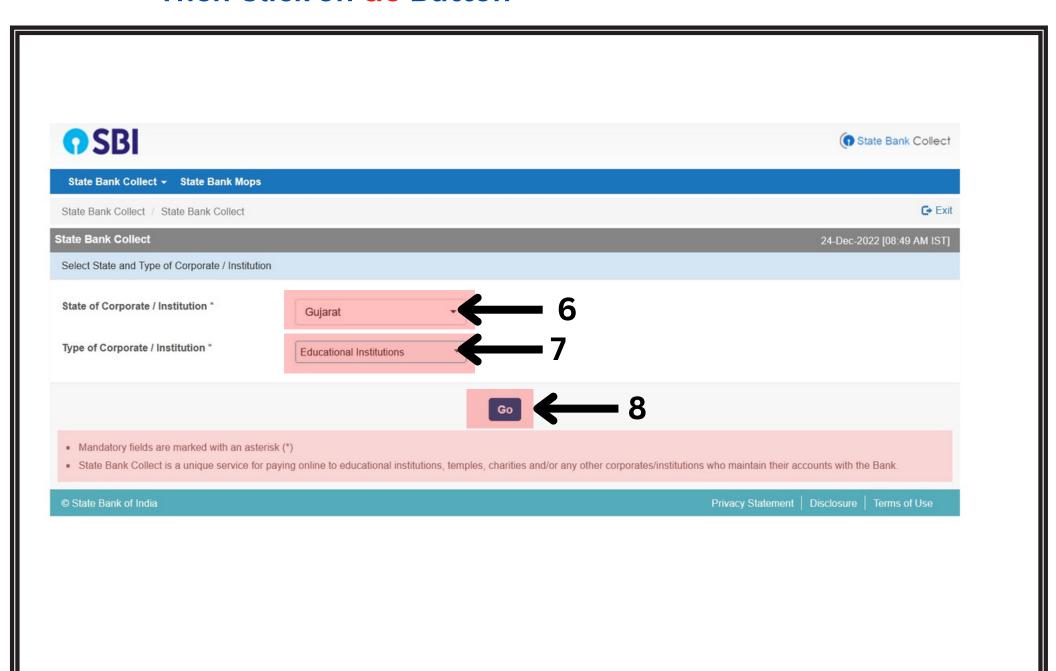
- > Corporate Customer: Firm/Company/Institution (F/C/I) collecting payment from their beneficiaries.
- User: The beneficiary making a payment to F/C/I for the services/goods availed.
- > Bank shall not be responsible, in any way, for the quality or merchantability of any product/merchandise or any of the services related thereto, whatsoever, offered to the User by the Corporate Customer. Any disputes regarding the same or delivery of the Service or otherwise will be settled between Corporate Customer and the User and Bank shall not be a party to any such dispute. Any request for refund by the User on any grounds whatsoever should be taken up directly with the Corporate Customer and the Bank will not be concerned with such a request.
- > Bank takes no responsibility in respect of the services provided and User shall not be entitled to make any claim against the Bank for deficiency in the services provided by the Corporate Customer.
- > The User shall not publish, display, upload or transmit any information prohibited under Rule 3(2) of the Information Technology (Intermediaries guidelines) Rules, 2011.
- > In case of non-compliance of the terms and conditions of usage by the User, the Bank has the right to immediately terminate the access or usage rights of the User to the computer resource of the Bank and remove the non-compliant information.



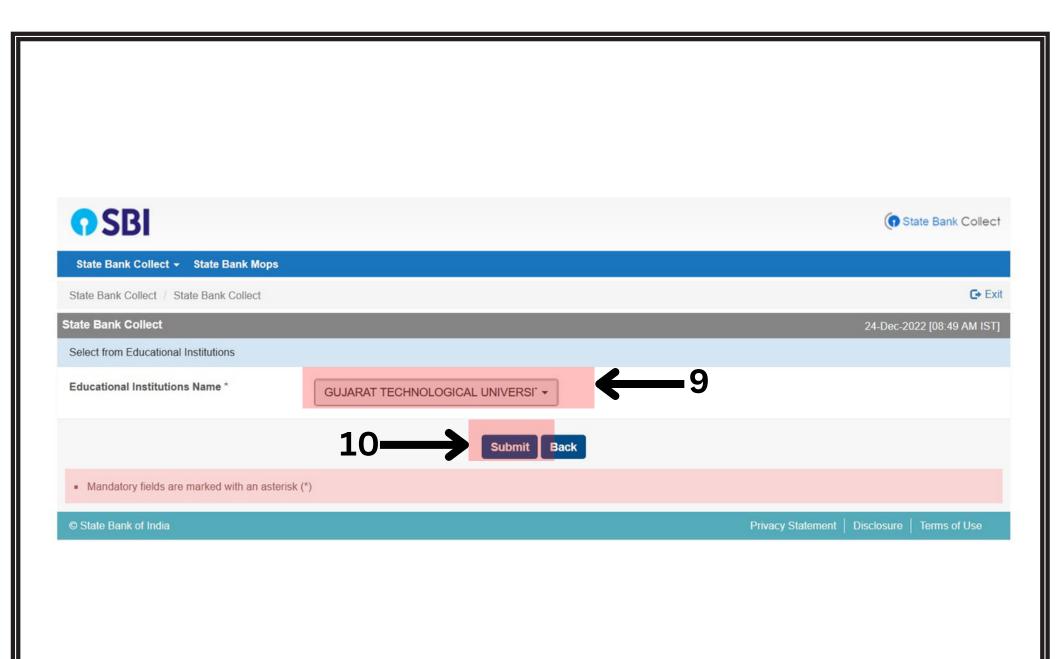
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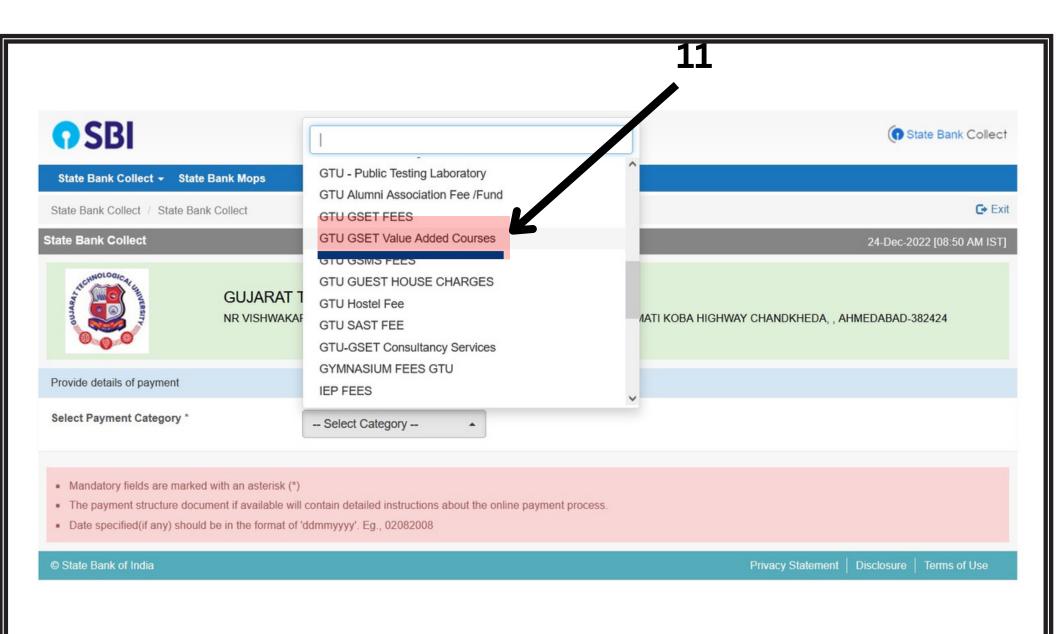
Step-5: Select State of Corporate/institute 'Gujarat' and Then Select Type of Corporate/institute 'Education Institutions' and Then Click on Go Button



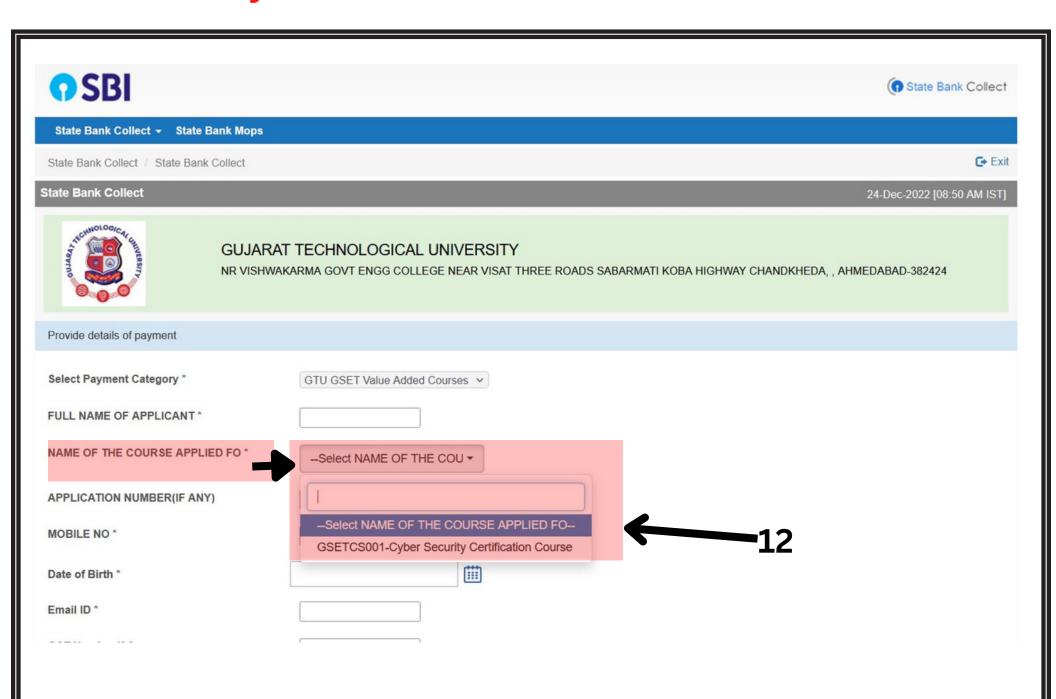
Step-6: In Educational Institution name List Box Must Select 'Gujarat Technological University' Then Click on Submit Button



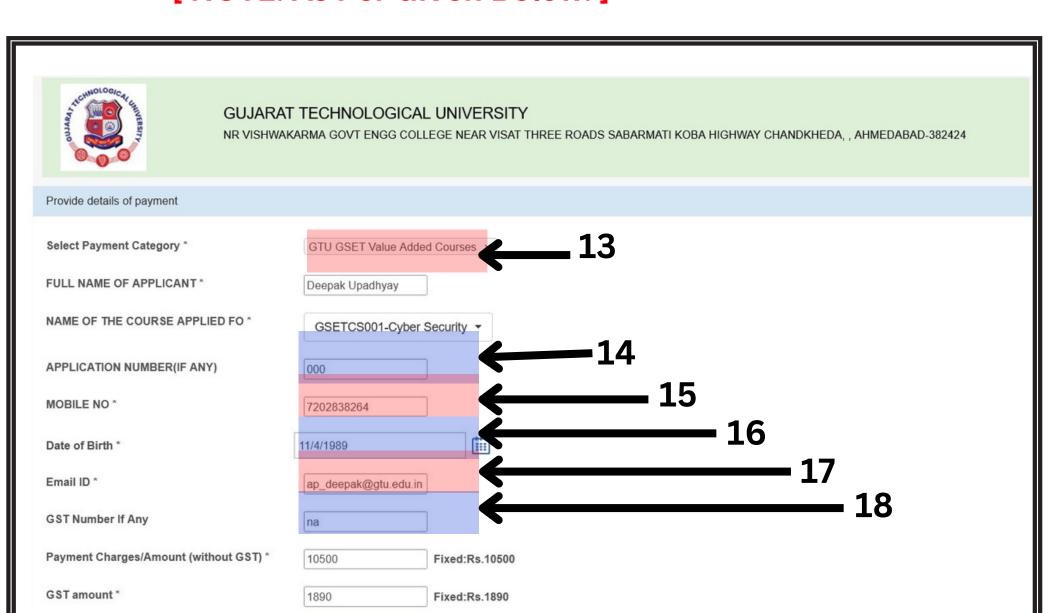
Step-7: In Payment Category Option Must be Remember to Select 'GTU GSET Value Added Courses'



Step-8: In Name of The Course Applied For Must be Remember To Select Name Of course to select 'GSETCS001-Cyber Security Certification Course'



Step-9: Fill Up Your Correct Personal Information Detail For The Payment Proceed (Full Name of Applicant (Name of Who Applied For Course), Application Number if Any, Mobile Number, email ID, GST Date of Birth, GST Number if Any) [NOTE: As Per Given Below:]



Step-10: In Remarks Write Cyber Security Course Then Fill-up Your Personal Information Then Must Be Remember to Enter The Capture Code As Per Given Below For Complete Payment Process Click On Submit Button

Before Click On Submit Must Check Fill-up The Information

GST Number If Any				
Payment Charges/Amount (without GST) *	10500	Fixed:Rs.10500		
GST amount *	1890	Fixed:Rs.1890		
Remarks	Cyber Security Certification	Course	— 19	
Please enter your Name, Date of Birth (For Perso This is required to reprint your e-receipt / remittant	nal Banking) / Incorporation ce(PAP) form, if the need arises	(For Corporate Banking) & Mobile 8.	e Number.	
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