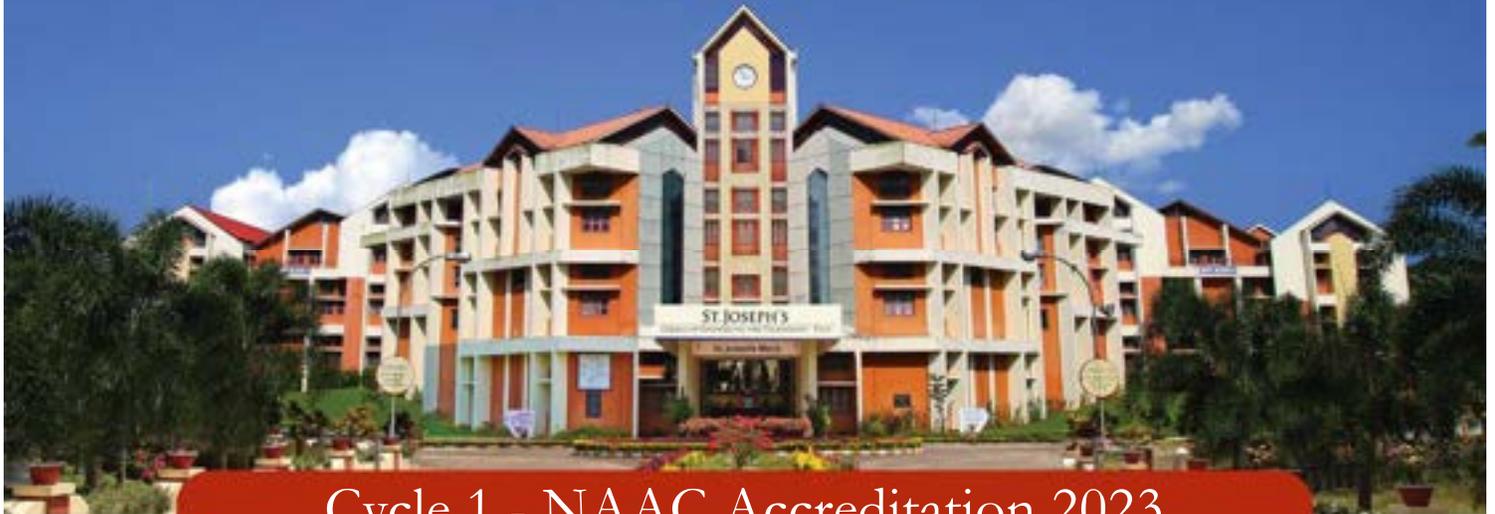




ST. JOSEPH'S

COLLEGE OF ENGINEERING
AND TECHNOLOGY,
- PALAI -

Choondacherry P.O., Palai, Kottayam Pin 686579, Kerala, India
Phone: +91 4822-239700, 239301, 239302
Email: info@sjcetpalai.ac.in • Website: www.sjcetpalai.ac.in



Cycle 1 - NAAC Accreditation 2023

Criterion - 4

Infrastructure & Learning Resources

4.3.1 Institution frequently updates its IT facilities including Wi-Fi

Submitted to:



National Assessment and Accreditation Council

Criterion - 4

Infrastructure & Learning Resources

CONTENTS

- IT Infrastructure Summary
 - Computers for Students use.
 - Computers in Office, Administration and Departments.
 - Number of Servers, NAS, Laptops, Printers, Scanners & LCD Projectors.
 - Computer Network Infrastructure & Internet
- Computer Labs & Digital Library
- Computers in Office & Administration
- Data Centre – Servers & Storages
- Software Products
- Firewall, Wi-Fi Access Points & Internet
- Campus Security Facility - CCTV
- Power Backup Facilities
- ICT Facilities
 - Smart Class Rooms (Audio Visual Tools)
 - Seminar Halls & Board Rooms
 - Printing and Scanning Facilities
 - Other Facilities for Students
 - Learning Management System (LMS)
 - Library and Information
 - Campus ERP System
 - Biometric Attendance System
 - Web Access – Sites, Channels & Social Media



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- PALAI -

IT INFRASTRUCTURE SUMMARY

Computers for Students use			
Sl. No.	Location	Department	Quantity
1	Software Computing Lab	CSE	65
2	Networking Lab	CSE	33
3	Programming Lab	CSE	34
4	Centre For Software Consultancy	CSE	3
5	Research Lab	CSE	28
6	EEE Computer Lab	EEE	33
7	Simulation Lab	EEE	20
8	CE Software Lab	CE	64
9	CAD/CAM Lab	ME	36
10	Industrial Engineering & Computational Lab	ME	15
11	EDA Lab	ECE	35
12	VLSI & Embedded Systems Lab	ECE	35
13	Communication Lab	ECE	6
14	Research & Development Lab	ECE	25
15	AD Computer Lab - I	AD	32
16	MBA Reference	MBA	10
17	MCA Computer Lab	MCA	62
18	Process Control Lab	EI	5
19	Main Library	Central	14
20	Central Computing Facility (CCF)	Central	60
Total =			615




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Computers in Office, Administration and Departments			
Sl. No.	Location	Department	Quantity
1	Office & Administration	Administration	43
2	Computer Science & Engineering	CSE	11
3	Civil Engineering	CE	5
4	Electronics Communication & Engineering	ECE	9
5	Electronics & Instrumentation Engineering	EI	5
6	Electrical & Electronics Engineering	EE	5
7	Mechanical Engineering	ME	17
8	Master of Computer Applications	MCA	7
9	Master of Business Administration	MBA	2
10	Main Library	MLID	7
11	Artificial Intelligence & Data Science	AD	2
12	Electronics and Computer Engineering	ES	3
13	Science and Humanities	S&H	3
14	Laptops	All	34
Total =			153

Number of Servers, NAS, Printers, Scanners & LCD Projectors. etc.		
Sl. No.	Description	Quantity
1	Servers	10
2	Network Attached Storage (NAS)	1
3	Printers & MFP	75
4	Scanners	16
5	LCD Projectors	60
6	Smart Boards	6




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- PALAI -

Computer Networking Infrastructure & Internet

Particulars	Details
Type	LAN
Topology	Star
Building to Building Connection	Fiber Optics Cable
Central Security Facility from Public Network (Internet/WAN)	Firewalled with SOPHOS XGS 4500 UTM
Block wise Network Management	Multilayer Switches with VLANS (HP ProCurve Series)
Internet	BSNL 300 Mbps Leased Line 1:1 Connection BSNL 50 Mbps Leased Line 1:1 Connection Railwire 30 Mbps (Core Failover Dedicated Line: Broadband) Total: 350 Mbps
Public IP Addresses (Static)	Available 30 Nos.
Firewall	Enabled (with SOPHOS XGS 4500 Firmware SFOS 19.0.1 MR-1)
VLAN	Enabled
Wi-Fi	Enabled (Restricted Mode with Authentication and MAC Filtering)
Other Network Facilities	FTP (Local and Public Access), Centralized File Server
Network Cabling	Structured UTP Cabling and OFC Block to Block Connection)

Network Switches & Access Points

Particulars	Details
Manageable Switches	60 Switches used for Data Network
Access Points	83 Nos for WIFI facility
Media Converters	66 Nos
Network Racks	64 Nos

Campus Security Facilities

Particulars	Details
Camera Surveillance	232 Cameras - IP Cameras
NVR	18 Nos
Manageable Switches	19 Nos for CCTV Service

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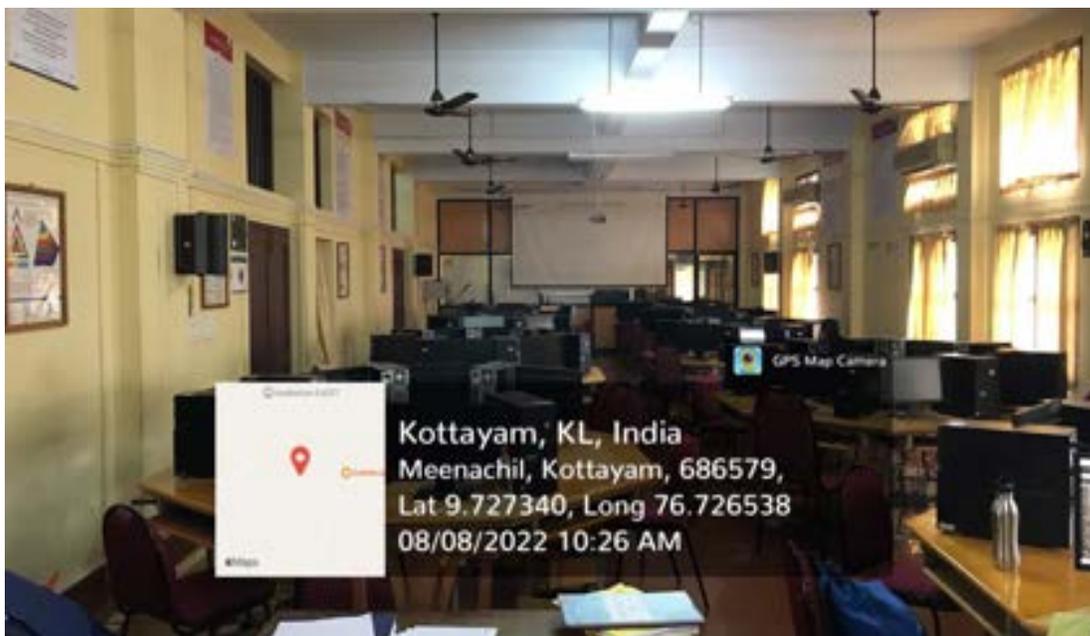


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ENGINEERING & TECHNOLOGY
PALAI

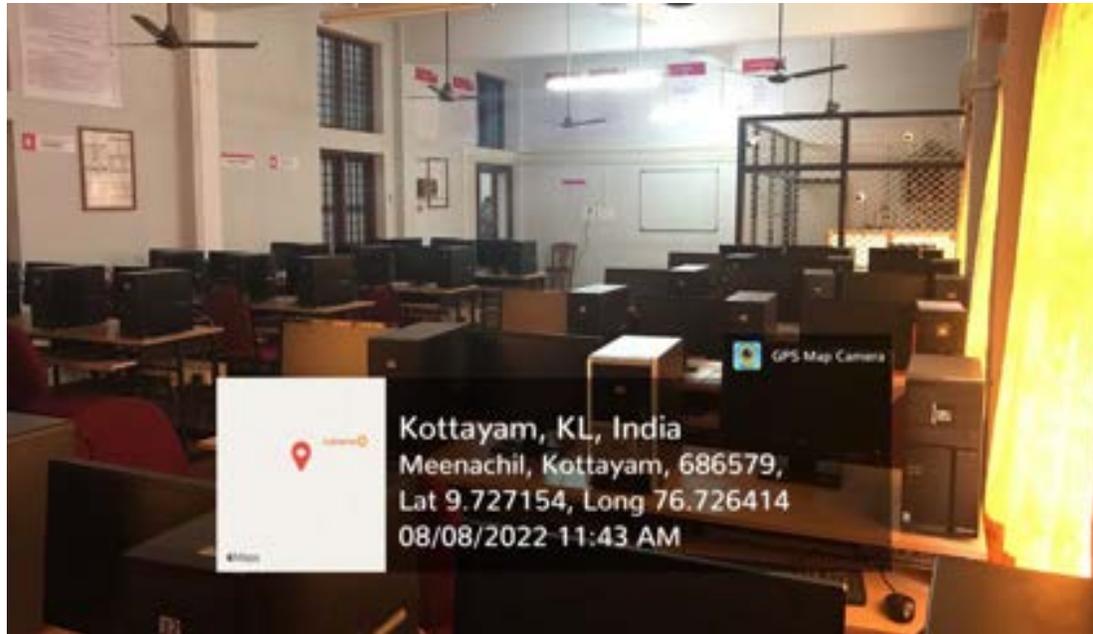
Computer Labs & Digital Library



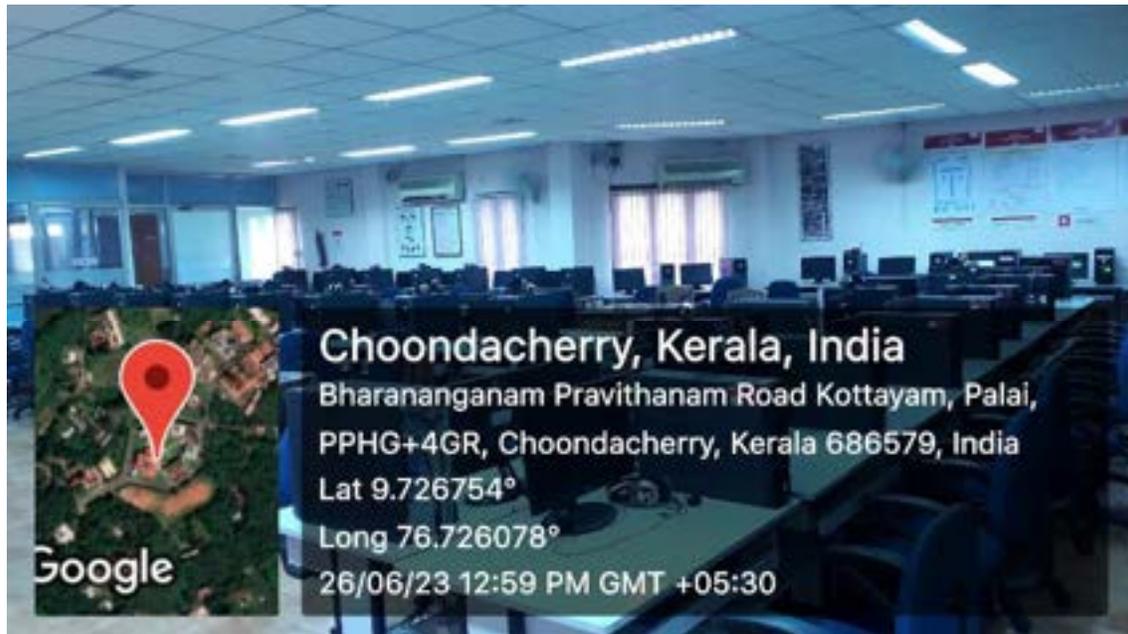
CE – Software Lab



CSE- Software Computing Lab



CSE- Programming Lab



Central Computing Facility – CCF



Digital Library (Computer Systems)

Computers in Office & Administration etc.



Data Centre – Servers & Storages



Data Centre - Server Room



Data Centre – Inside the Server Room



<< Core Server and Storage Racks >>



Core Network & Surveillance Equipment Racks

Software Products

Sl. No.	Software Vendor	Product Details	License Type
1.	Microsoft	Microsoft Enrolment for Education Solutions – Campus Alliance for Volume Licensing with Visual Studio DreamSpark Subscriptions. Includes: - Windows Server Operating Systems (Windows Server Standard Editions up to 2022) & Desktop Operating Systems (Professional Editions & Education Editions up to Windows 11) and MS Office Professional Plus & LTSC up to 2021 Editions. All other application software under the subscription policy.	Volume Licensing – Campus wide
2.	MathWorks	MathWorks Campus Wide Suite (MATLAB Academic)	Volume Licensing – Campus wide
3.	Quick Heal - Seqrite	Endpoint Protection Security (Antivirus)	Campus wide for Critical Nodes



Tax Invoice

CoreEL Technologies (I) Pvt Ltd No 21, 7th Main, 1st Block Koramangala Bangalore GSTIN/UIN: 29AABCC1915E1Z1 State Name : Karnataka, Code : 29 CIN: U72200KA1999PTC033050 E-Mail : accounts@coreel.com		Invoice No. CT/22-23/660 Delivery Note	Dated 31-Mar-23 Mode/Terms of Payment			
The Principal St Joseph's College of Engineering & Technology Kottayam, Palai-686 579 State Name : Kerala, Code : 32 Buyer (Bill to)		Reference No. & Date. Ad.AIB/ONL/62/23 dt. 28-Mar-23 Buyer's Order No. Ad.AIB/ONL/62/22-23	Other References Dated 28-Mar-23 Delivery Note Date			
The Principal St Joseph's College of Engineering & Technology Kottayam, Palai-686 579 State Name : Kerala, Code : 32		Dispatch Doc No. Dispatched through	Destination Kerala			
Terms of Delivery Payment Terms 100% advance Additional Note : We refer to the CBDT Notification No.21 /2012 dated 13 June 2012. "This is a resale of Software without any modification. Hence TDS is Not Applicable on this products."						
Sl No	Description of Services	HSN/SAC	Quantity	Rate	per	Amount
1	Math Works Campus Wide Suite (All Toolboxes with Matlab Academic Online Training Suite) for One Year	9973	1 No	6,00,000.00	No	6,00,000.00
	IGST Payable @ 18%				18 %	1,08,000.00
Total			1 No			₹ 7,08,000.00
Amount Chargeable (in words)						<i>E & O E</i>
Indian Rupees Seven Lakh Eight Thousand Only						
HSN/SAC		Taxable Value	Integrated Tax Rate	Amount	Total Tax Amount	
9973		6,00,000.00	18%	1,08,000.00	1,08,000.00	
		Total		6,00,000.00	1,08,000.00	1,08,000.00
Tax Amount (in words) : Indian Rupees One Lakh Eight Thousand Only						
Remarks: CUP-Order Bobban Company's PAN : AABCC1915E		Company's Bank Details A/c Holder's Name: CoreEL Technologies (I) Pvt Ltd Bank Name: HDFC OD 6750000744645 A/c No.: 6750000744645 Branch & IFS Code: CMH Road, Indiranagar & HDFC0000184 for CoreEL Technologies (I) Pvt Ltd				
Declaration We declare that this invoice shows the actual price of the goods described and that all particulars are true and correct.						

This is a Computer Generated Invoice

MathWorks Campus Wide Suite (MATLAB Academic)

SEQRITE

SEQRITE
Software License Certificate



149

To:
St. Joseph College Of Engineering And Technology
Pala, Kottayam

Seqrite Software License Certificate

Certificate No : ENT/21-22/PU/86447
Issue Date : 14/04/2021(dd/mm/yyyy)

Please find the details of Seqrite Software License for "Seqrite Endpoint Security Business Edition "

License Type	Product Key	Batch No.	Number of Endpoints	Subscription Period	Packs Subscribed	End Date
New	DD3A0-88A8A-14PE7-2A024	G21-CIS100-43336	100	36 Month(s)	No Pack	14-04-2024

You can download Seqrite Endpoint Security latest installer from: www.seqrite.com/seqrite-product-installer

Please register the product after installing it using the above Product Key. Registered users will receive updates for the Subscription Period from the date of registration. For understanding the terms and conditions, kindly read the End User License Agreement (EULA) at <http://www.seqrite.com/eula>

For more details or specific information on system requirements, please visit www.seqrite.com/seqrite-endpoint-security-business

How to download Inialler setup of Seqrite Endpoint Security :
<http://esupport.seqrite.com/support/solutions/articles/23000009460-how-to-download-installer-setup-of-seqrte-endpoint-security>

How to install Seqrite Endpoint Security Server Console :
<http://esupport.seqrite.com/support/solutions/articles/23000009438-how-to-install-seqrte-endpoint-security-server-console>

For support, please contact:
Customer Care No: 18002127377

Handwritten signature

Seqrite - Endpoint Protection Security Antivirus

Firewall, Wi-Fi Access Points & Internet



Sophos XGS 4500

Unleash the full potential of your network

Xstream Protection

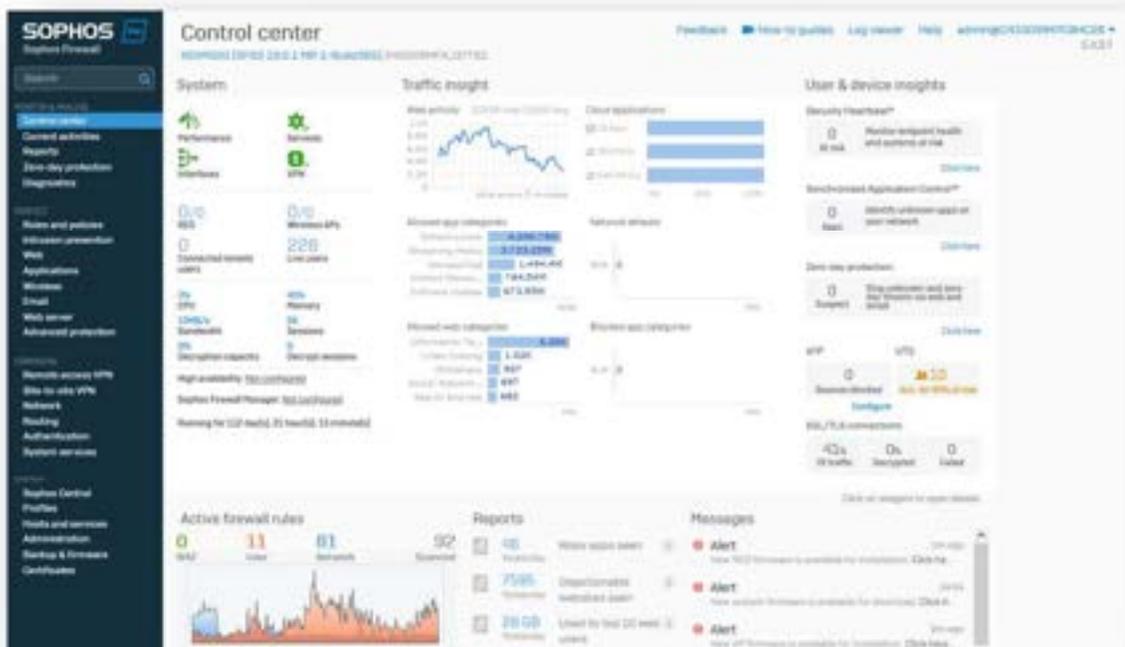
Sophos Firewall's Xstream architecture protects your network from the latest threats while accelerating your important SaaS, SD-WAN, and cloud application traffic.



Sophos Firewall - Powerful Protection and Performance



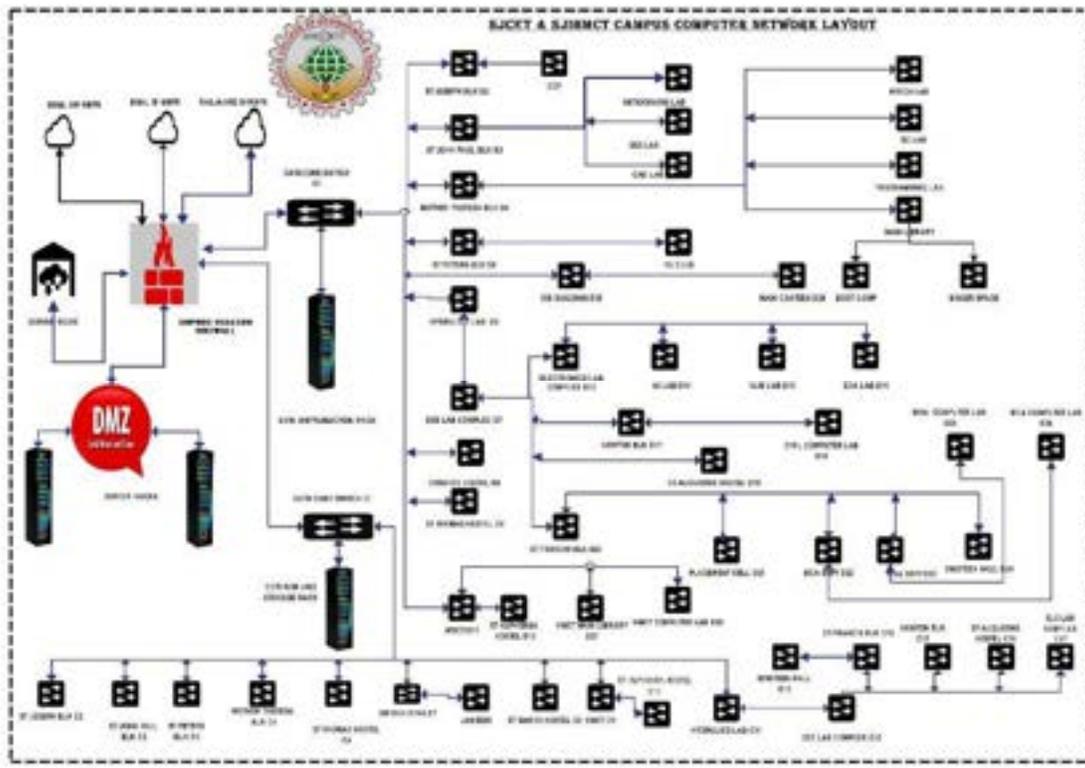
Sophos Wireless



SOPHOS Firewall – Central Control Centre



Installed in the Server Room at Data Centre on Network Traffic Rack



Campus Computer Network & Internet Flow Layout



SOPHOS APX 320 Wi-Fi Access Points Installed of various Locations in the Campus

BSNL Leased Line Internet Connections

Enterprise Business
BSNL
Kottayam B A
686 001



भारत संचार निगम लिमिटेड
(भारत सरकार का उपक्रम)
BHARAT SANCHAR NIGAM LIMITED
(A Govt. of India Enterprise)

No EB/KTM/SJCET/ dated at Kottayam the 24.11.2018

To whomsoever it may concern

This is to certify that St. Joseph's College of Engineering and Technology, Palai is availing a 300 Mbps (1:1) internet leased line from BSNL.

Yours Sincerely

Sub Divisional Engineer (EB)
O/o General Manager
BSNL, Kottayam – 686001

Regd. & Corporate Office: Bharat Sanchar Bhawan, H.C.Mathur Lane, Janpath, New Delhi -110001



Enterprise Business
BSNL
Kottayam SSA
686 001



भारत संचार निगम लिमिटेड
(1975 में भारत का दफ्तर)
BHARAT SANCHAR NIGAM LIMITED
(A Govt. of India Enterprise)

Ltr No KTM/ EB/ GEN/2021-22/8 dated at Kottayam the 22-02-2022

To whomsoever it may concern

This is to certify that St. Joseph College of Engineering & Technology , Pala is availing one 300 Mbps (1:1) & 50 Mbps (1:1) Internet Leased Line from BSNL, Kottayam. This certificate is issued as per the request from the customer.

Sub Divisional Engineer (EB)
O/o PGMT , BSNL Kottayam
एच मेंडल इंजीनियर (EB)
Sub Divisional Engineer (EB)
बी.एस.एन.एल., कोट्टयम
B.S.N.L., Kottayam

Copy to:

1. DGM(MKTG/EB) BSNL , Kottayam

BSNL

BSNL

BSNL

BSNL

BSNL

BSNL

Campus Security Facility- CCTV & Surveillance



ST. JOSEPH'S COLLEGE OF ENGINEERING AND TECHNOLOGY, - PALAI -

CCTV Infrastructure Details

Sl No	Location	No of Cameras
1	St. Joseph Block	27
2	St John Paul Block	12
3	St Peters Block	12
4	Mother Theresa Block	25
5	St. Francis Block	50
6	Newtons Block	12
7	Front Gate & Main Canteen	15
8	Einstein Hall	16
9	St. Thomas Hostel	25
10	St. Alphonsa Hostel	30
11	St. Augustine Hostel	9
Total		232

Other hardware Details

Sl No	Item Description	Spec	No of Units
1	NVR	Dehua 16 channel	18
2	Camera	Dehua 2 MP IP	232
3	Hp 24 port switch	POE manageable	19
4	16 Channel KVM Switch	Master View Video resolution 1920 x 1440	1




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Outdoor HD IP Cameras in the Campus



Indoor HD IP Cameras in the Class Rooms



CCTV Surveillance NVR Racks (Centralized Management of NVR) at Data Centre

Power Backup Facilities



ST. JOSEPH'S COLLEGE OF ENGINEERING AND TECHNOLOGY, - PALAI -

Power Backup Facilities (UPS & Other)

Sl.No.	Particulars	Type	Qty
1.	APC SURT 10000LUXI 10KVA	UPS	4
2.	Liebert Vertiv rTA2 20 kVA	UPS	3
3.	Liebert GXT MT+ 10 kVA	UPS	1
4.	Power One 20 kVA	UPS	1
		Total UPS =	9
		Total Capacity =	130kVA
1.	a. 24-Hour Power Backup 125KVA + 320 kVA (Auto Switching with Load Balancing) b. Dedicated 82.5KVA for Multipurpose Building	Generator	3
2.	Solar Power	On-Grid	210 kW



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Uninterrupted Power Supply - UPS



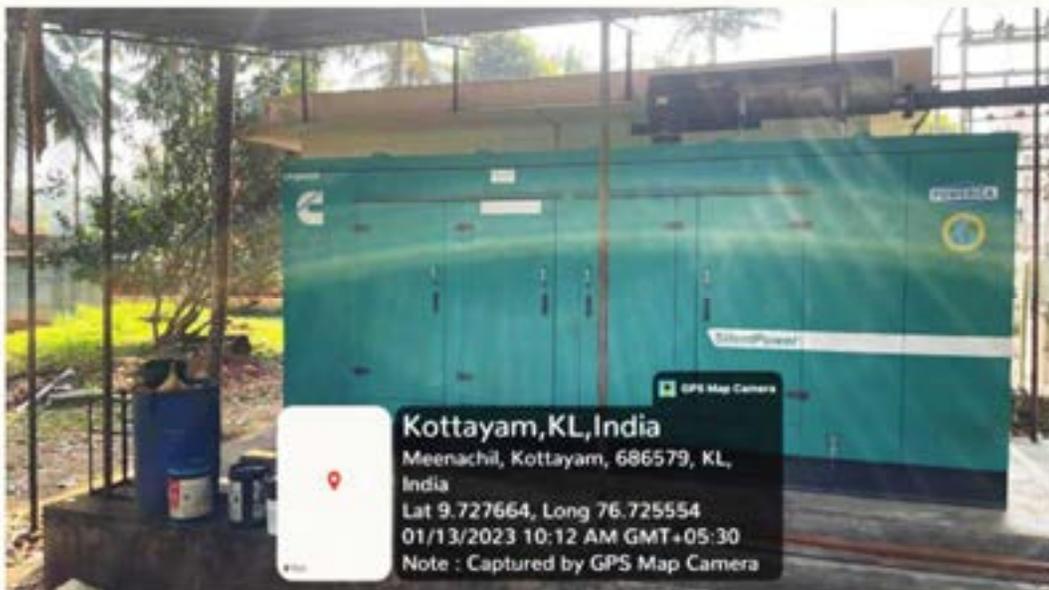
Liebert Vertiv 20kVA



Liebert GXT MT+ 10kVA

Power Generator & 11 KV Substation

Department/Amenity	Amenity
Name of the LAB/ Amenity	11KV Substation and Generator Room
Location	Near College
Total floor Area	102 m sq



Solar Power Grid (Panels)



Solar Panels 1



Solar Panels 2

ICT Facilities

Smart Class Rooms





Figure 7: S5/S6 Lecture Hall Geotagged Photo 3



Figure 8: S5/S6 Lecture Hall Geotagged Photo 4

Seminar Halls & Board Rooms

Name of Lab/ Amenity	MTB Seminar Hall
Room Number	315
Location	MTB
Total Floor Area	236.41
 <p style="text-align: center;">GPS Map Camera</p> <p>Choondacherry, Kerala, India PPGG+VJ4, Choondacherry, Kerala 686579, India Lat 9.727029° Long 76.728534° 13/01/23 02:16 PM GMT +05:30</p>	 <p style="text-align: center;">GPS Map Camera</p> <p>Choondacherry, Kerala, India PPGG+VJ4, Choondacherry, Kerala 686579, India Lat 9.72723° Long 76.726714° 13/01/23 02:13 PM</p>
Figure 1	Figure 2

St. Joseph's Block, Second Floor - Seminar Hall



Name of Lab/ Amenity	St. Francis Hall
Room Number	009
Location	St. Francis Block, First Floor
Total Floor Area	435 m ²
Additional facility in the described area	<ul style="list-style-type: none"> ➤ 450 comfortable seating capacity with executive chairs ➤ Centralized air conditioning system. ➤ High-speed LAN and Wi-Fi connection. ➤ Projector, TV, Computer, CCTV and High-quality audio facilities.



Figure 1: St. Francis Hall Geotagged Photo 1

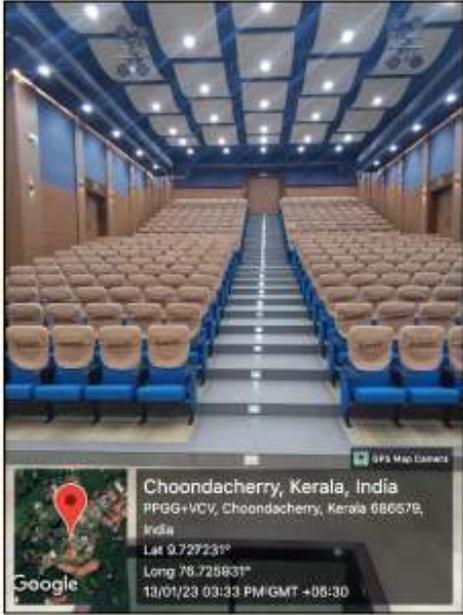


Figure 2: St. Francis Hall Geotagged Photo 2



Figure 4: St. Francis Hall Geotagged Photo 4

Name of Lab/ Amenity	Board Room
Room Number	314
Location	MTB
<p>Choondacherry, Kerala, India PPGG+VJ4, Choondacherry, Kerala 686579, India Lat 9.727029° Long 76.726534° 13/01/23 02:31 PM GMT +05:30</p>	<p>Choondacherry, Kerala, India PPGG+VJ4, Choondacherry, Kerala 686579, India Lat 9.727029° Long 76.726534° 13/01/23 02:32 PM GMT +05:30</p>
Figure 1	Figure 2

Department	Science and Humanities
Name of the Amenity	Board Room
Location	St. Joseph's Block, First floor
Total floor area	105.58m2
	

Printing and Scanning Facilities



Printing and Scanning Facilities at CCF for Students and Staffs



Printing and Scanning Facilities for Office & Administration



Printing and Scanning Facilities for Departments

Other Facilities for Students

Name of Lab/ Amenity	BOOT CAMP & Maker Space
Room Number	101.102
Location	MTB Ground Floor
Total Floor Area	163.91



Figure 1

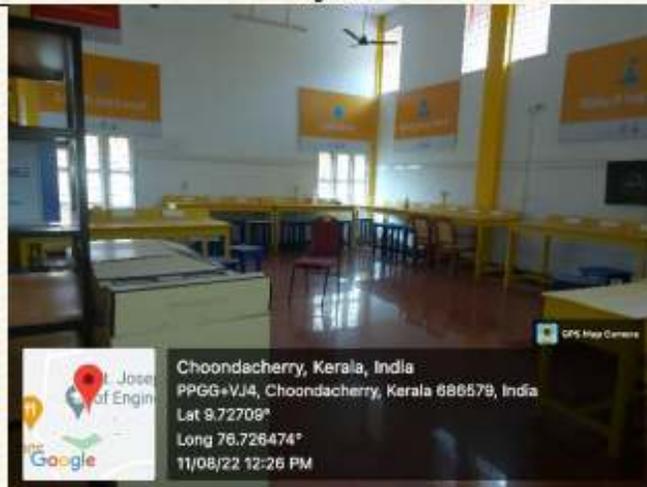
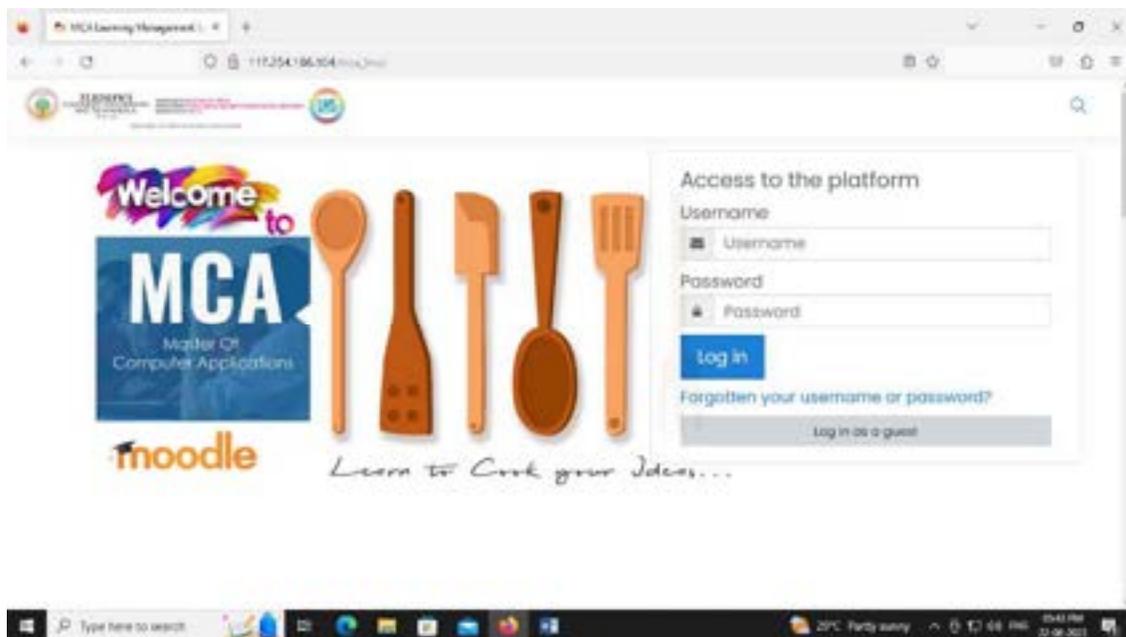


Figure 2

Boot Camp & Maker Space
(Kerala State Start-up Mission Initiative)

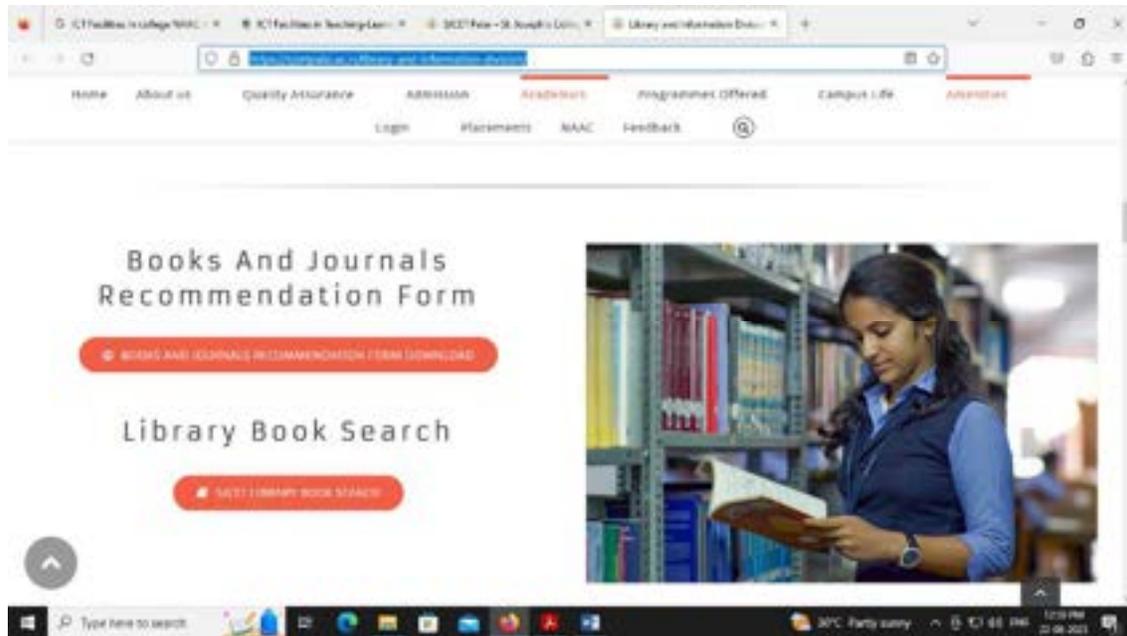
Leaning Management System (LMS) – Moodle





Library & Information Division: <https://sjcetpalai.ac.in/library-and-information-division>





Library Book Search Online: <https://sjct.koha.sjctpalai.ac.in>

E Resources

[Science Direct](#)

[IEEE ASPP - IEEE All Society Periodical Package](#)

[IEEE POP - IEEE Proceedings Order Plan](#)

[J Gate Social Science and Humanities](#)

[EBSCO Core Engineering E-books Collection](#)

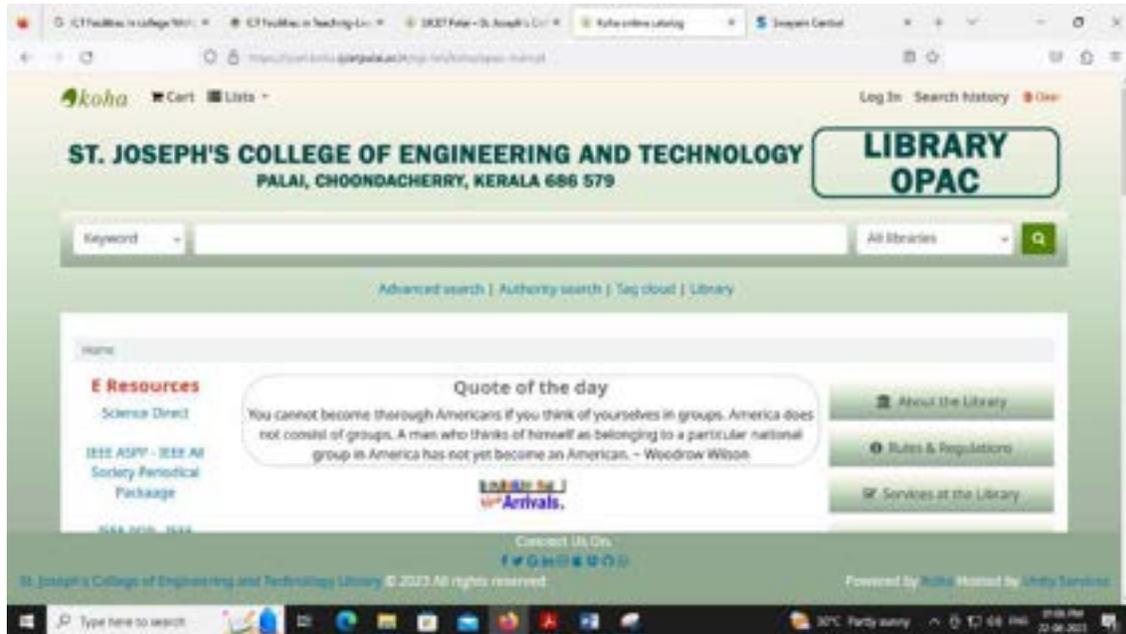
[Developing Library Network](#)

[National Digital Library](#)

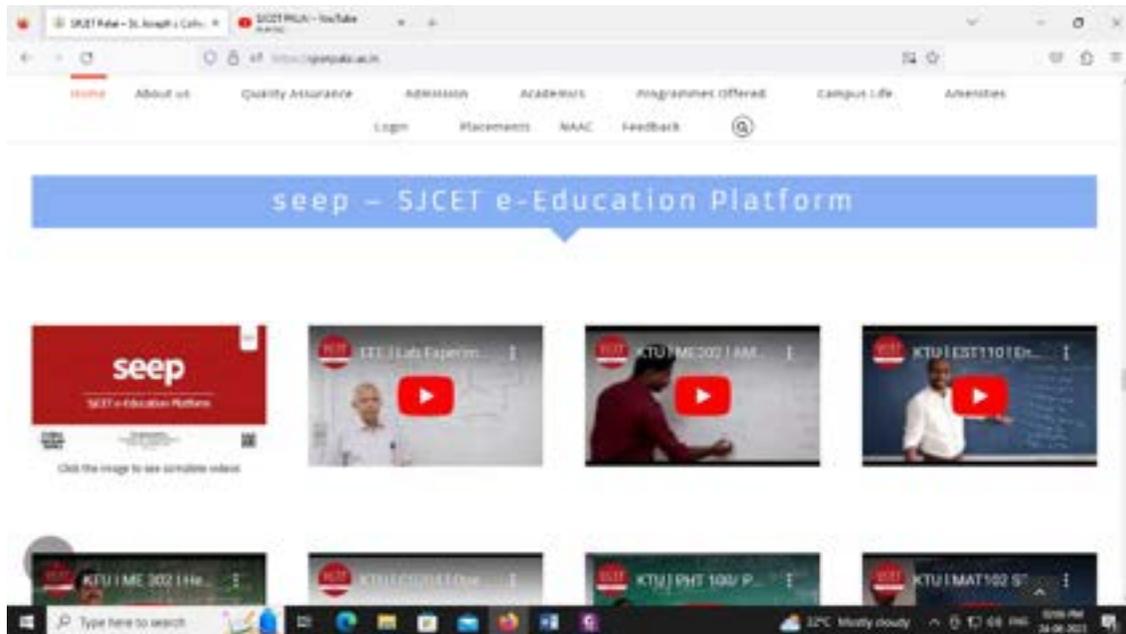
[National Programme on Technology Enhanced Learning Online](#)

[Swayam](#)

Digital Library- KOHA

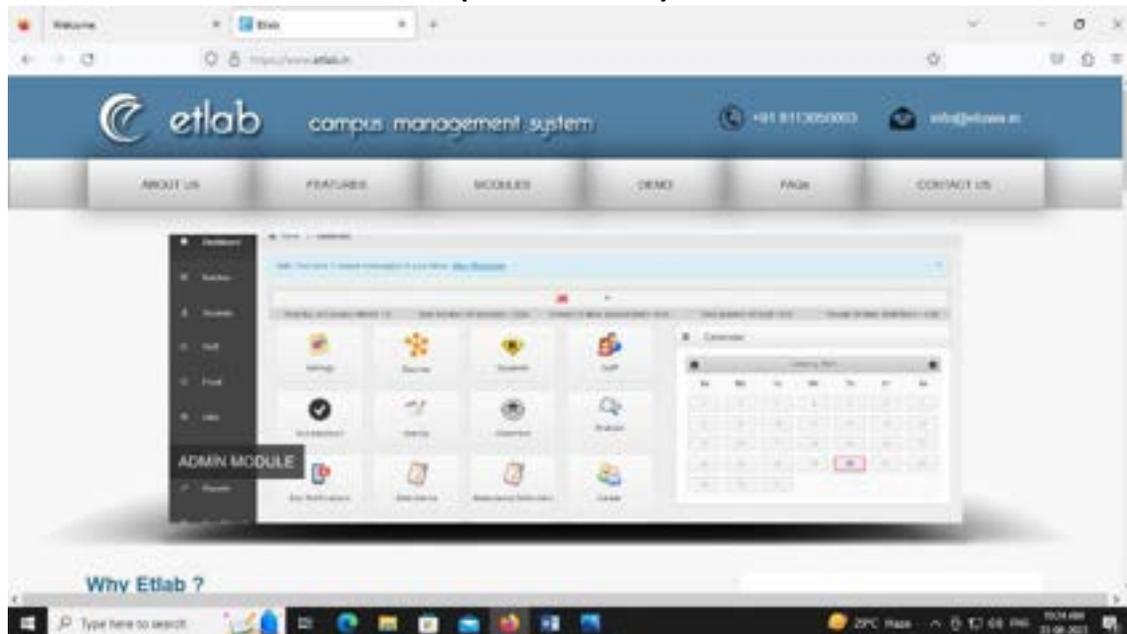


Digital Library Online: <https://sjcet.koha.sjcetpalai.ac.in>

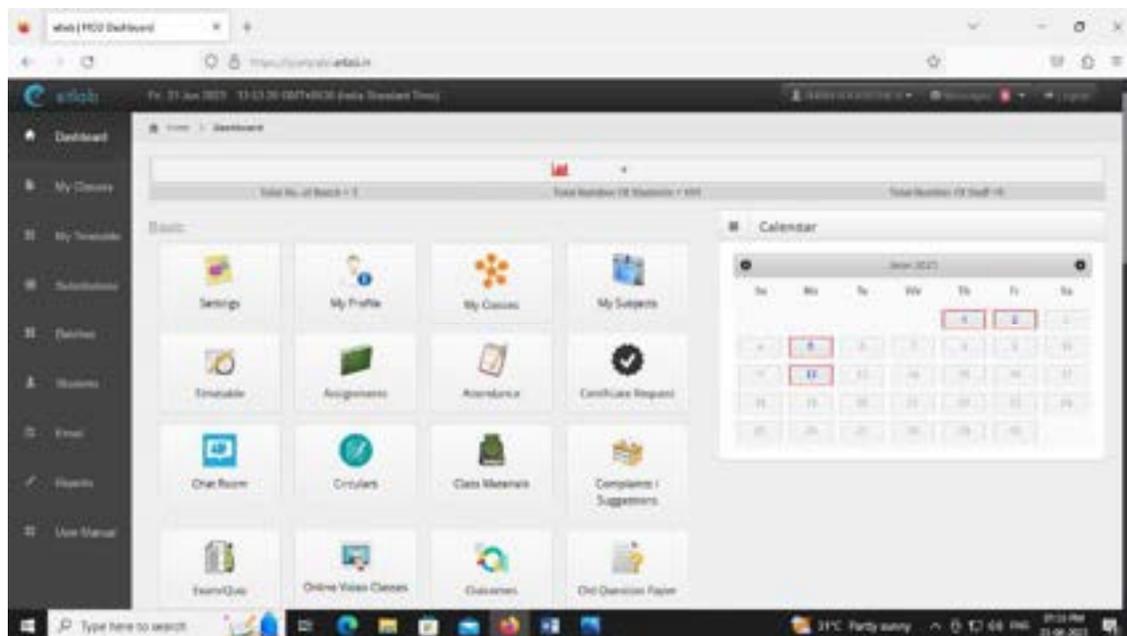


SEEP -SJCT e-Learning Platform

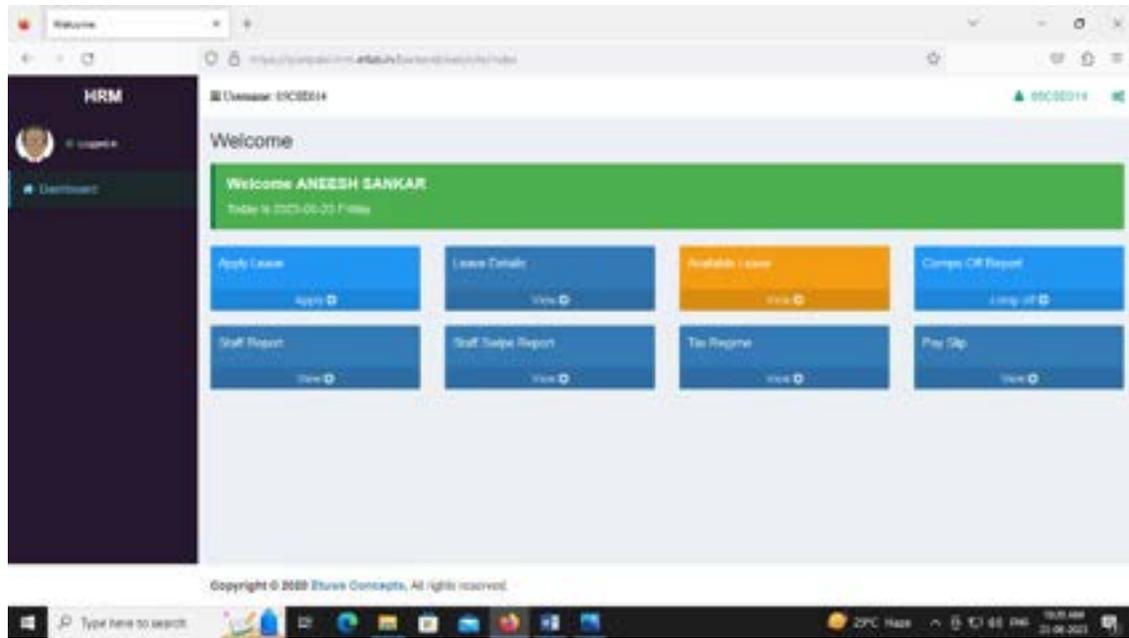
Campus ERP System



etLab – A Comprehensive Campus Management System for Educational Institutions.



Campus ERP – etLab Academic Portal: <https://sjcetpalai.etlab.in>



Campus ERP – etLab HRM: <https://sjcetpalai.hrm.etlab.in/backend/web>

Biometric Attendance System



Multi-Biometric Time Attendance & Access Control System

uFace-302



Specification

Storage Capacity

Face Capacity : 3,000
Fingerprints Capacity : 4,000
ID Card Capacity : 10,000
Transaction Capacity : 1,00,000
Push Data : Yes
Communication : TCP/IP, RS232/485, USB Host
Display : 4.3-inch touch screen

Standard Functions

Automatic Status Switch, Self-Service Query, Work Code, SMS, DST,
T9 Input, 9 Digit User ID, Scheduled Bell,
Photo ID Access Control Interface for 3rd Party
Electric Lock, Door Sensor, Exit Button, Alarm
Wiegand : Output

Optional Functions

Mifare Card, Wi-Fi, 3G,
2000 mAh Backup Battery, FR-1200

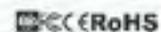
Power & Environment

Power Supply : 17V 3A
Operating Temperature : 0 °C ~ 45 °C
Operating Humidity : 20% ~ 80%
Dimension (in mm) : 133.6 x 165.2 x 86
Package Weight : 1.6 kg

Features

- Multi-languages
- High verification speed
- Advanced and user-friendly UI
- Chip encryption for firmware protection
- Optional built-in battery backup providing approximately 4 hours of continuous operation
- Easy to extend functions and customize client's requirements
- One face template is registered for one user only
- Able to detect whether the face is an actual face or a photo, enhancing the security level of verification

Disclaimer: Brief specifications are mentioned here. Specifications may change without prior notice. Customers are advised to check with us before purchase.
Actual product may differ slightly to that depicted for ongoing product development.
www.essslsecurity.com





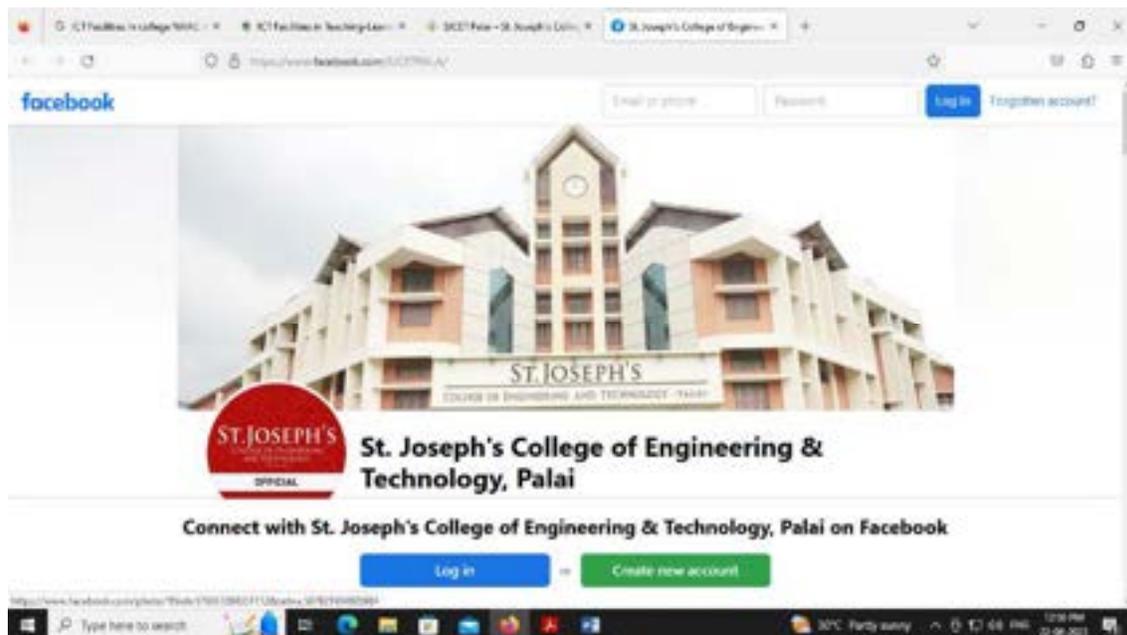
Biometric Attendance System in the Campus integrated with the Cloud ERP Campus Software
(Installed in the Campus at various Places for the ease of marking attendance)

Web Access – Sites, Channels & Social Media

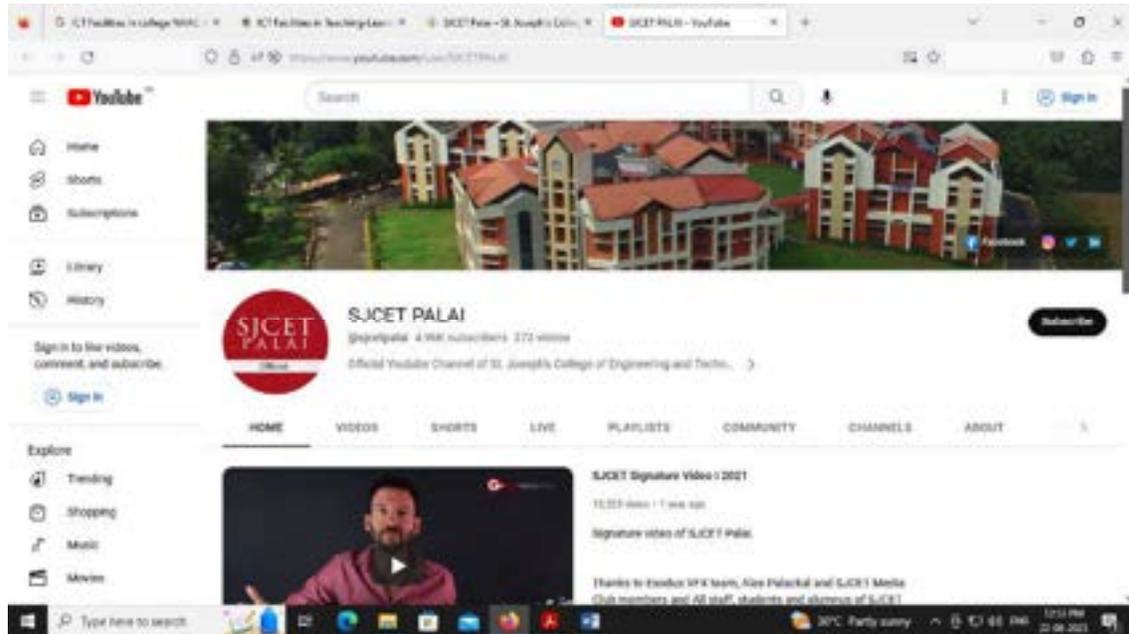


College Website: <https://sjcetpalai.ac.in>

facebook



College Facebook Page: <https://www.facebook.com/SJCETPALA>



College YouTube Channel: <https://www.youtube.com/user/SJCETPALAI>



College on Twitter: https://twitter.com/sj cet_palai