Bharatiya Vidya Bhavan

Let noble thoughts come to us from every side

'SCOPE'

Skill Certification for Outcome-Based Professional Education

http://onlinecourses.spit.ac.in

Scope for successful professional career.

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Why SCOPE?

➢**Training programmes to develop technical skills in learners.**

➢**Outcome based model**

➢**Every course shall have focused learner centric expected outcome**

➢**Focus: Employability, Innovation and Research**

Why SCOPE?

➢ **SCOPE is a tool to enhance career prospects and orient learners towards self learning.**

➢ **Cafeteria model with 'collaborative learning', 'blended learning' and project based learning (PBL).**

➢ **Freedom of choice to learner to design their own combination of studies to get domain "proficiency".**

➢ **Courses which are in demand in industry**

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Why SCOPE?

➢**Total 24 modules each containing 6 courses.**
Total number of courses=144

➢**Flexibility in course timings**
(after 4.00 pm or on Saturday-Sunday)

➢**Interdisciplinary enrollment possible**

➢**Peer Learning Groups and discussion forums**

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What is available under SCOPE?

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SCOPE
Introduction Page

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Modules Offered (6 per department)

Electronics Engineering Department:

1. Front End VLSI Design and Verification
2. Back End VLSI Design
3. Electronic Product Design
4. Advanced Instrumentation
5. DSP, Power Electronics and Control
6. Antennas and Networking

Electronics and Telecommunication Engineering Department:

1. Cyber-Physical and Embedded Systems
2. Simulation and Modeling
3. Networking and Security
4. Multimedia Communication Systems
5. RF System and Design
6. Telecommunication Engineering Practices

Computer Engineering Department:

1. Expert System Design
2. CGI Scripting and Text Processing
3. Multimedia and Web Designing
4. Internet of Things
5. IT Infrastructure, Systems and Security
6. Big Data Analytics and Applications

Information Technology Department:

1. Web Designing
2. Game Designing And Deployment
3. Infrastructure Security
4. Social Media Analysis
5. Coding Skill
6. Banking And Finance

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SCOPE
Skill Certification for Outcome-based Professional Education

Home > Courses

Courses

Electronics Engineering

1. Front End VLSI Design and Verification
2. Back End VLSI Design
3. Electronic Product Design
4. Advanced Instrumentation
5. DSP, Power Electronics and Control
6. Antennas and Networking

Electronics and Telecommunication Engineering

1. Cyber-Physical and Embedded Systems
2. Simulation and Modeling
3. Networking and Security
4. Multimedia Communication Systems
5. RF System and Design
6. Telecommunication Engineering Practices

Computer Engineering

1. Expert System Design
2. CGI Scripting and Text Processing
3. Multimedia and Web Designing
4. Internet of Things
5. IT Infrastructure, Systems and Security
6. Big Data Analytics and Applications

Information Technology

1. Web Designing
2. Game Designing And Deployment
3. Infrastructure Security
4. Social Media Analysis
5. Coding Skill
6. Banking And Finance

Department–wise Modules Offered

Click on a module to find out a course

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Courses Offered Under Each Module

ELSD1:Front End VLSI Design and Verification	ELSD2:Back End VLSI Design
ELSD13:Fundamentals of FPGA and CPLD	ELSD23:Device simulation with TCAD
ELSD14:FPGA based System Design	ELSD24:SPICE programming
ELSD15:Fundmentals of SystemVerilog	ELSD25:MOSFET Modeling
ELSD16:Soft Processors and SoC Programming	ELSD26:Low Power VLSI
ELSD17:Static Timing Analysis	ELSD27:Mixed Signal VLSI
ELSD18:SystemVerilog Assertions	ELSD28:Fundamentals of RFIC
ELSD3:Electronic Product Design	**ELSD4:Advanced Instrumentation**
ELSD33:Python Programming for Single Board Computers	ELSD43:Labview Programming-I
	ELSD44:Labview Programming-II
ELSD34:Rapid Embedded System Design	ELSD45:Data Acquisition and Control-I
ELSD35:Efficient Embedded System Design	ELSD46: Data Acquisition and Control-II
ELSD36:Protocols and Standards	ELSD47: PLC and SCADA Programming
ELSD37:Embedded Linux	ELSD48: Development of Healthcare Platform
ELSD38:RTOS Programming	
ELSD5:DSP, Power Electronics and Control	**ELSD6:Antennas and Networking**
ELSD53:MATLAB Programming	ELSD63:Fundamentals of Networking
ELSD54:Solar System Components	ELSD64:Network Simulation Tools
ELSD55:Solar System Design	ELSD65:Simulation of Radiating Elements
ELSD56:Simulation tools for Power Electronics	ELSD66:Design, Implementation and Testing of Radiating Elements
ELSD57:Applications of Digital Signal Processors	
ELSD58:Digital Control System	ELSD67: IP Subnetting and Supernating
	ELSD68:Wireless Network Security

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Courses Offered Under Each Module

ETSD1: Cyber-Physical Systems	ETSD2:Simulation and Modeling for Wireless and Mobile Communication

ETSD13:PCB Design
ETSD14: Internet of Things (IoT) Sensing Systems
ETSD15: Internet of Things (IoT) Actuating
    Systems
ETSD16: SDR and USRP
ETSD17:Application of DSP Hardware for Smart
    Antennas System
ETSD18: Software Defined Network (SDN) Design
	ETSD23: Channel Modeling using Scilab
	ETSD24: Scripting Languages Perl and Python
	ETSD25: NS2 and NS3
	ETSD26: SDR using GNURADIO
	ETSD27: WLAN Optimization
	ETSD28: Signal Monitoring

ETSD3: Networking and Security	**ETSD4:Multimedia Communications Systems**

ETSD33:Fundamentals of Networking
ETSD34:Network Operating System and Linux
ETSD35: Network Troubleshooting and Switch
    Configuration
ETSD36:Firewall Administration
ETSD37: Server Optimization and Security
ETSD38: Cryptography and PKI
	ETSD43: Fundamentals of Multimedia Standards
	ETSD44: Image and Video Processing using OpenCV
	    and FFMPEG
	ETSD45: LAN Telephony & VoIP Administration
	ETSD46: Video Streaming
	ETSD47: Implementation of CODEC
	ETSD48: Error Correcting Codes

ETSD5:RF System and Design	**ETSD6:Telecommunication Engineering Practices**

ETSD53: Fundamentals of RF
ETSD54: RF Passive Component Design using IE3D
ETSD55: RF Active Component Design
ETSD56: Testing using VNA
ETSD57: Smart Antennas and Beamforming
ETSD58: MIMO System
	ETSD63: Fundamentals of Reliability Engineering
	ETSD64: Stress Testing Techniques
	ETSD65: Telecommunication Regulations and Safety
	    and Economics
	ETSD66: Wireless Network Planning, Design and
	    Optimization
	ETSD67: Wireless Network Testing
	ETSD68: Technology Obsolescence

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Courses Offered Under Each Module

CESD1: Expert System Design	CESD2: CGI Scripting and Text Processing
CESD13: Fundamentals of Expert System	CESD23: Shell Scripting
CESD14: Neural Network Algorithm	CESD24: Perl Scripting
CESD15: Machine Learning Algorithm	CESD25: Python Programming
CESD16: Design of Artificial Neural Network	CESD26: Ruby on Rails Programming
CESD17: Deep Learning	CESD27: Application Development with Scripting
CESD18: Application Development Using Neural Network and Machine Learning	Languages
	CESD28: Text Processing Tools
CESD3: Multimedia and Web Designing	**CESD4: Internet of Things**
CESD33: Graphics Designing: Adobe Photoshop & Corel Draw	CESD43: Fundamentals of IoT
CESD34: 2D Animation: Flash Professional	CESD44: IoT Communication Models & Protocols
CESD35: 3D animation: 3D Studio MAX & MAYA	CESD45: IoT Sensor Networks
CESD36: Movie Making & Sound : Flash & Sound Forge	CESD46: Data Management & Analytics for IoT
CESD37: Game Development: 3D Studio MAX & MAYA	CESD47: Programming Technologies for IoT
CESD38: Web Designing: Adobe Dreamweaver	CESD48: IoT Cloud Platform
CESD5: IT Infrastructure, Systems and Security	**CESD6: Big Data Analytics and Applications**
CESD53: Computer Network Administration	CESD63: Fundamentals of Data Analytics
CESD54: Information Security	CESD64: Prediction Analytics: Regression and Classification
CESD55: Network Defense and Countermeasures	
CESD56: Cyber Security and Forensic	CESD65: Prediction Analytics: Time Series, Decision Tree and Neural Network
CESD57: Public Key Infrastructure	CESD66: Big Data Analytics: Hadoop and Spark
CESD58: Data Center Management	CESD67: Big Data Analytics: Scala
	CESD68: Data Analytics Applications

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Courses Offered Under Each Module

ITSD1: Web Designing		ITSD2: Game Designing And Deployment	
ITSD13:	Web Programming Fundamentals	ITSD23:	Digital imaging
ITSD14:	Client And Server Side Scripting	ITSD24:	Desktop Game Development
ITSD15:	Mobile App Development	ITSD25:	Android Game Development
ITSD16:	UI Design	ITSD26:	Multiplayer games
ITSD17:	Web Security	ITSD27:	Game Control Using OpenCV
ITSD18:	Web Analytics	ITSD28:	Game Development Using Virtual Reality
ITSD3: Infrastructure Security		**ITSD4: Social Media Analysis**	
ITSD31:	Network Configuration & Troubleshooting	ITSD41:	Data Collection Techniques
ITSD32:	Network Programming	ITSD42:	Handling Unstructured Data
ITSD33:	Network Simulators	ITSD43:	Analysis Using R-Tool
ITSD34:	Ethical Hacking	ITSD44:	Image Analysis
ITSD35:	Wireless Security	ITSD45:	Recommendation System
ITSD36:	Digital Forensics	ITSD46:	Visualization Of Data
ITSD5: Coding Skill		**ITSD6: Banking And Finance**	
ITSD51:	Shell Scripting	ITSD61:	Statistical Analysis
ITSD52:	Programming In C++	ITSD62:	Financial Planning
ITSD53:	Android Programming	ITSD63:	Cost Accounting
ITSD54:	Python Programming	ITSD64:	Market Analysis
ITSD55:	Struts &Hibernate	ITSD65:	Stock & Shares
ITSD56:	Ruby On Rails (ROR) Framework	ITSD66:	Security Audit

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Course Registration

Course registration has to be done online on SCOPE webpage before the registration for the course closes.

**Registration Charges (Inclusive of taxes):
S.P.I.T. Students=Rs. 3000/-- per course
Others=Rs. 5000/-- per course**

Money shall be paid by Cheque in favor of S.P.I.T. Allied Division

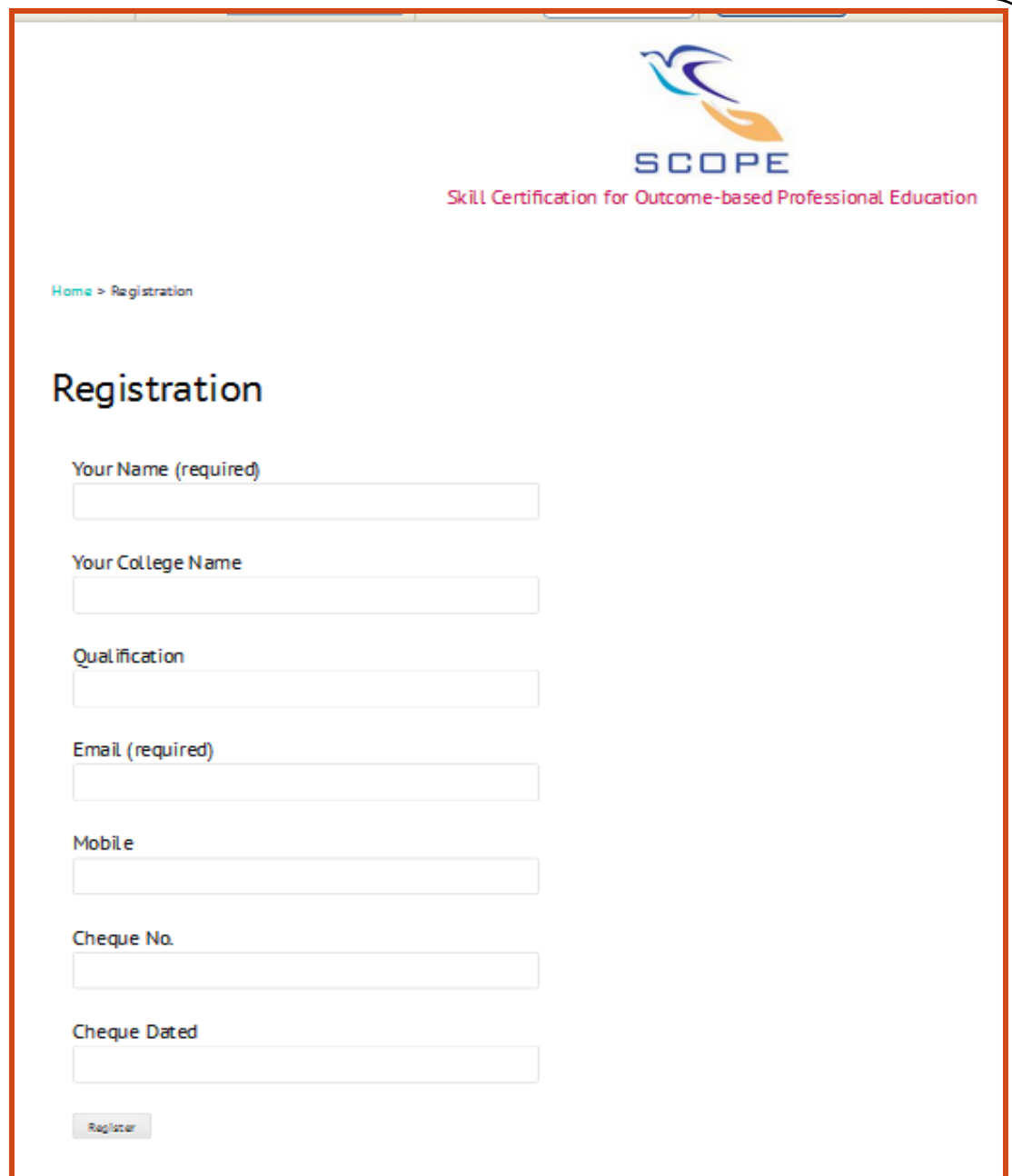**Submit cheque before deadline to respective course co-ordinators**

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Course Registration

No-Refund Policy:

Once registration for the course is confirmed then registration money shall not be refunded under any circumstances.

Credits to S.P.I.T. students:

After completion of one complete module learner get 2 extra credits at the end of VIII semester. 'Proficiency' obtained shall be listed in the grade card.

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Course Registration Page

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Home > Registration

Registration

Your Name (required)

Your College Name

Qualification

Email (required)

Mobile

Cheque No.

Cheque Dated

Register

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Course Introduction Page

Learners Log-in

Course Outline

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Content Delivery

➤ **Flip-Classroom Mode**

➤ **10 Hours theory under Self-learning**

➤ **Self learning material will open to registered learners after registrations closes**

➤ **Material may be in the form of pdf/multimedia**

➤ **20 Hours contact for extensive hands-on training**

➤ **10 Hours of mentored project**

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Industry Involvement

➢ **Content Design by Industry Expert**

➢ **Content Delivery in some of the courses**

➢ **Autograder designed by industry experts for assessment in some of the courses**

➢ **Case studies and applications**

➢ **Industry Mentor**

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Assessment

Composite Score:

Online pre-lecture assignment=20%

+

Assessment during Hands-on Training=40%

+

Project=40%

Total=100%

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Certification

Types of Certificates:

Based on the consolidated marks we have FIVE types of certificates.

GOLD: $\qquad$ Marks $\geq$ 90%

SILVER: $\qquad$ 90% > Marks ≥ 80%

BRONZE: $\qquad$ 80% > Marks ≥ 70%

SUCCESS: $\qquad$ 70% > Marks ≥ 60%

PARTICIPATION: 60% > Marks

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Certificate Format

SCOPE

Skill Certification for Outcome-based Professional Education

Sardar Patel Institute of Technology, Mumbai

(An Autonomous Institute Affiliated to Mumbai University)

This certificate is awarded to

KARAN SHAH

for successfully completing 40 hours course on

"Fundamentals of FPGA And CPLD"

with a composite score (20% pre-lecture assignments+40% hands-on sessions +40%project) of

95 % (A+ Grade)

JULY 2017

Prof. Pawankumar Fakatkar
Course Co-ordinator

Dr. S. S. Rathod
Dean Academics

Roll number :SCOPE- 2013110001   To validate and check scores use: weblink

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Students Opinion

This is an awesome idea. I would like to enroll immediately for these courses. I am sure that these courses will help me develop proficiency in the area of my interest.

I would prefer to join these courses because of time flexibility and their interdisciplinary nature. I wish would have been an S.P.I.T. student to fetch max credits by attending max. courses.

There is a need for extensive hands-on courses along with proper assessment. Good laboratory set-up available at S.P.I.T. will definitely help in achieving desired outcome of these courses.

Kindly make sure that these courses get enough publicity. My friends in other colleges are always in search of these kind of courses. Please start them as soon as possible.

FAQ

➢How these courses are different as compared to NPTEL?

    ➢These courses are extensive hands-on training courses more focused on practical aspects rather than theoretical knowledge.

➢Where do I get information about up-coming certification courses?

    ➢From institute website www.spit.ac.in

➢I just came to know that course that I wanted to join has concluded. Is there any chance of this course being offered again?

    ➢Yes, it can be offered again in same semester depending on demand by student . For any course if 20 students are enrolled then it can be offered any time. We encourage batch enrollment of minimum 20 students from a particular college.

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FAQ

- How do I enroll/register for SCOPE course?
  - Please refer course registration page on institute website http://onlincecourses.spit.ac.in

- Is there a fee to enroll for a course and how to pay? Can I pay online?
  - Yes there is a fee for every course. You can pay by cheque in favor of S.P.I.T. Allied Division. Soon online payment module will be activated.

- What is the eligibility criterion for registering for a course?
  - Self motivation and pre-requisite knowledge.

- Is there any restriction on branch for attending a particular course
  - These are interdisciplinary courses. Student from any branch can attend any course provided that he has learned pre-requisite which shall be verified by course co-ordinator.

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FAQ

➢ In which class FE/SE.TE/BE I should be to register for a course?
   ➢ Student from any class can attend any course

➢ How many courses can I enroll for at a time?
   ➢ Technically you can enroll for as many courses as you wish. However you are recommended to see the dates of the courses and then enroll.

➢ How will I come to know about assignments and deadlines?
   ➢ They will be available in student login and you will also get Email/SMS alert.

➢ Will the score that I get for the assignment(s) be counted along with my exam marks for the final score?
   ➢ Yes 20% weightage will be given to your assignment(s) score.

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FAQ

➢I may not be able to submit all the assignments. Will this hinder my final score?

> ➢If you are not able to submit assignments then your score shall be affected. But you have chance to score during hands-on session evaluation and project evaluation.

➢Does institute have sufficient laboratory facilities to run these courses.

> ➢Yes. We are starting only those courses for which we have laboratory facilities.

➢Is there any placement provided after attending these courses?

> ➢No, we do not guarantee. Direct placement is not provided. These courses are skill based highly focused on outcome. Since you become proficient in one of the domain after completing a particular module. Your chances of employability increases.

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For Any Information Contact:

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Dean Academics

Sardar Patel Institute of Technology

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Thank You

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