KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE

Warangal – 506 015, Telangana, INDIA (An AUTONOMOUS INSTITUTE under Kakatiya University, Warangal)

काकतीय प्रौद्योगिकी एवं विज्ञान संस्थान वरंगल – ५०६०१५.

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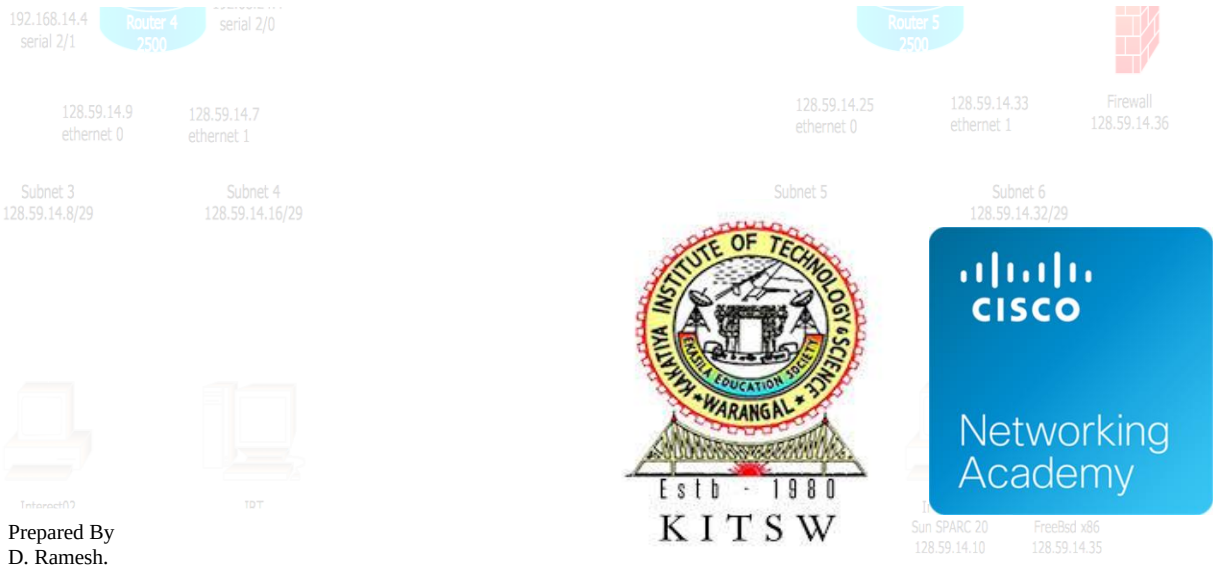
KITSW

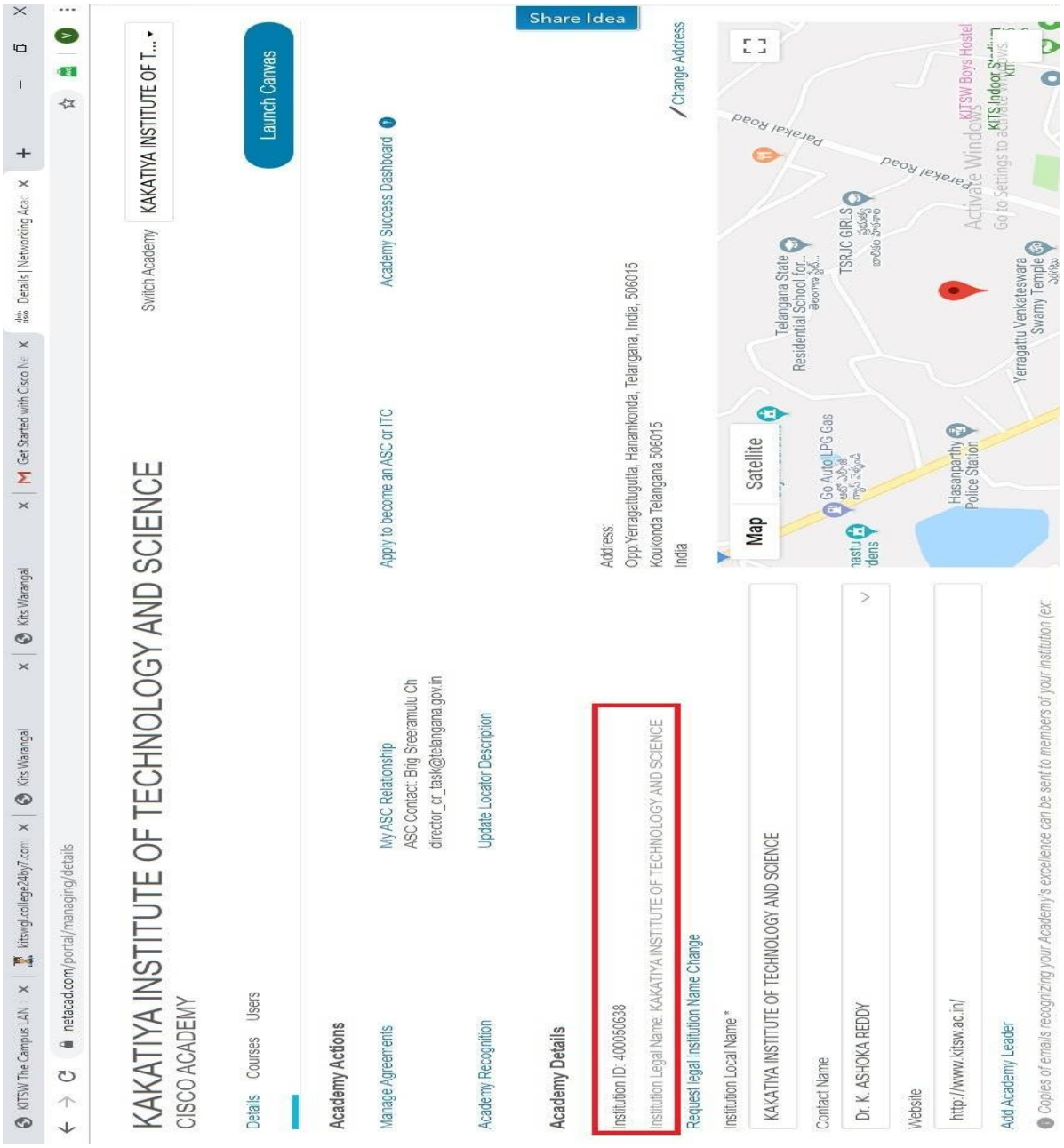
CISCO | CENTER of EXCELLENCE



Prepared By
D. Ramesh.
Assistant Professor,
Dept of CSE, KITSW

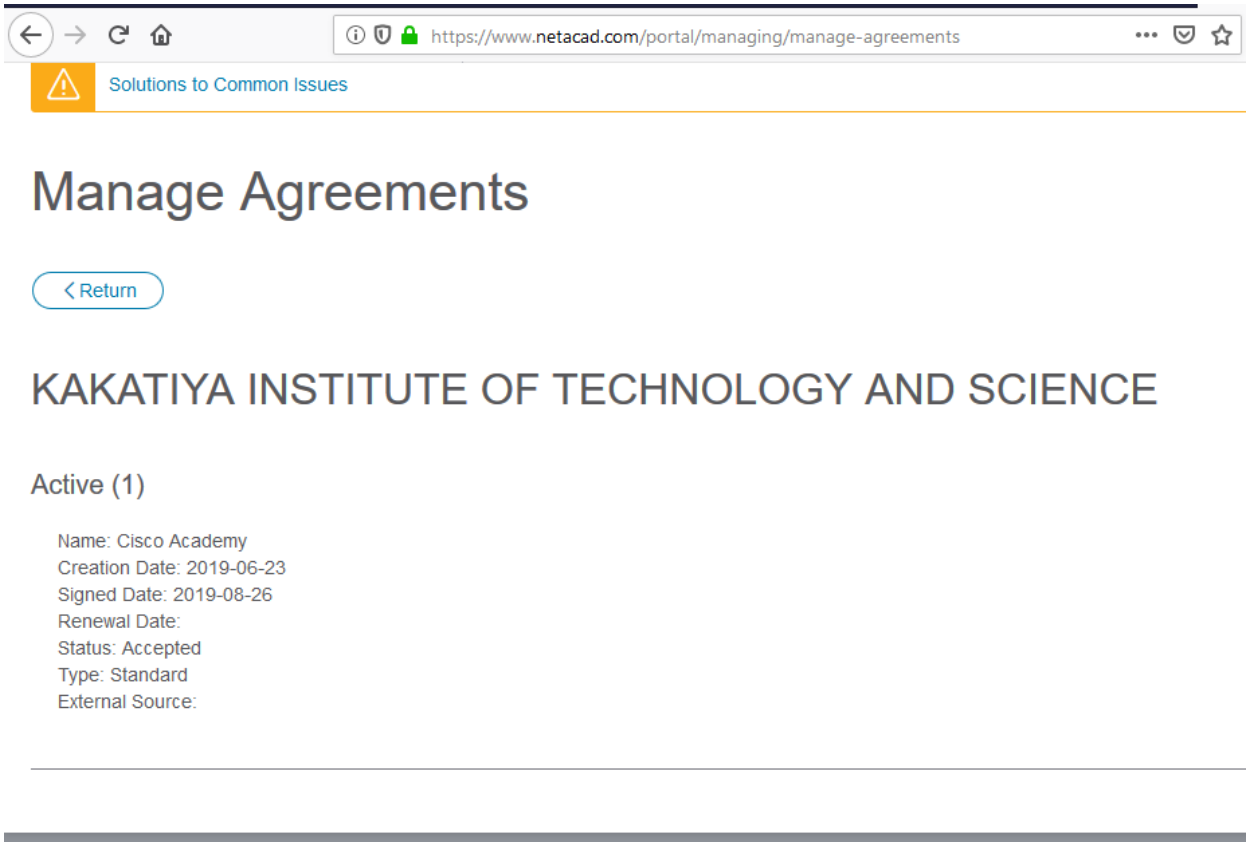
KITSW - Cisco Networking Academy Agreement

Institution ID: 400050638



KITSW - Cisco Networking Academy

Agreement details



CISCO Centre of Excellence

Cisco Systems, a leading U.S.-based networking company in collaboration with Kakatiya Institute of Technology & Science, warangal establish the Cisco Centre for Excellence, its initiative in collaborating with our college to provide networking training facilities to students & staff.

Kakatiya Institute of Technology & Science signed a Memorandum of Understanding in this connection.

A lot of innovations were being done there. Cisco is looking at much more than earning revenue. Students are encouraged to do projects with Cisco on Cisco technologies.

Cisco, whose main interest is in the networking area, is moving into Internet of Everything, and students should take advantage of the new Centre.

Through this CISCO Centre of Excellence the following CCNA Course is offered to the students.

CCNA-RS (Cisco Certified Network Associate – Routing & Switching)

- CCNA Routing and Switching certification focuses on foundational IP networking skills required to deploy, operate and troubleshoot network layers.
- To prepare for the network transition, the CCNA Routing and Switching certification will not only prepare you with the knowledge of foundational technologies, but ensure you stay relevant with skill sets needed for the adoption of next generation technologies.

CCNA Routing and Switching includes the following features:

- Students learn the basics of routing, switching, and advanced technologies to prepare for the Cisco CCENT and CCNA certification exams, networking related degree programs, and entry-level networking careers.
- The language used to describe networking concepts is designed to be easily understood by learners at all levels and embedded interactive activities help reinforce comprehension.
- Courses emphasize critical thinking, problem solving, collaboration, and the practical application of skills.
- Multimedia learning tools, including videos, games, and quizzes, address a variety of learning styles and help stimulate learning and promote increased knowledge retention.
- Hands-on labs and Cisco Packet Tracer simulation-based learning activities help students develop critical thinking and complex problem solving skills.
- Embedded assessments provide immediate feedback to support the evaluation of knowledge and acquired skills.

Objectives of CISCO – Center of Excellence "CISCO NETWORKING ACADEMY"

The key objectives of the center are to:

1. To train the students on CISCO technologies as per the Cisco Networking Academy stipulated curriculum.
2. Make the students ready to take up CISCO certification exams.
3. Conduct online CISCO CCNA-RS certification exams through netacad.com.
4. Help the students to understand networking technologies in a practical way.
5. Train faculty members on CISCO technologies, and thereby improve their practical knowledge on networking concepts.
6. Conduct FDPs / Workshops / Seminars for the benefit of faculty and students

Key benefits of Cisco Networking Academy at KITS-W campus

To Students:

1. Cisco will recognize KITS-W as authorized training center to conduct CCNA-RS course at campus.
2. After the successful completion of the course, students will get certificates from Cisco Networking Academy
3. Helps students develop workforce readiness skills and builds a foundation for success in networking-related careers and degree programs.
4. Cisco will offer a 58% discount voucher on CCNA exam fees for students who successfully clears grand tests with 75% and above, in a single attempt.
5. Students can use the facility of Cisco Packet Tracer to do simulations of different networks
6. Students can participate in CISCO ideathon contest
7. Networking Academy students can go for CISCO internships, Career development and job opportunity through community.

To Faculty:

1. Teaching networking concepts in a more practical way with industry standard technologies.
2. Can helpful for research.
3. Journal publications on latest protocols, networking technologies.
4. Cisco will offer a 70% discount voucher on CCNA exam fees for staff who successfully clears grand tests with 75% and above, in a single attempt.

To Institute:

1. CISCO Networking Academy
2. MoU between CISCO and KITS-W, can use CISCO Networking Academy logo.
3. Recognition with NBA, NAAC.
4. Revenue generation by doing training and consultancy.
5. All the departments of the campus can use the facility of academy.

CCNA-RS COURSE OUTLINE

CCNA-RS course has 2 modules. Module-1 is "**Introduction to Networks** (ITN)" and Module-2 is "**Routing & Switching Essentials** (RSE)".

MODULE-1:

Introduction to Networks Course Outline

Table 1. Introduction to Networks Course Outlines

Chapter	Introduction to Networks
1	Explore the Network
2	Configure a Network Operating System
3	Network Protocols and Communications
4	Network Access
5	Ethernet
6	Network Layer
7	IP Addressing
8	Subnetting IP Networks
9	Transport Layer
10	Application Layer
11	Build a Small Network

MODULE-2:

Routing & Switching Essentials Course Outline

Table 1. Routing & Switching Essentials Course Outlines

Chapter	Routing and Switching Essentials
1	Routing Concepts
2	Static Routing
3	Dynamic Routing
4	Switched Networks
5	Switch Configuration
6	VLANs
7	Access Control Lists
8	DHCP
9	NAT for IPv4
10	Device Discovery, Management, and Maintenance

CCNA-RS COURSE OUTCOMES

MODULE-1: Introduction to Networks (ITN)

CCNA R&S: Introduction to Networks (ITN) covers networking architecture, structure, and functions. The course introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations to provide a foundation for the curriculum.

By the end of the course, students will be able to:

- Explain network technologies.
- Explain how devices access local and remote network resources.
- Describe router hardware.
- Explain how switching operates in a small to medium-sized business network.
- Design an IP addressing scheme to provide network connectivity for a small to medium-sized business network.
- Configure initial settings on a network device.
- Implement basic network connectivity between devices.
- Configure monitoring tools available for small to medium-sized business networks.

MODULE-2: Routing & Switching Essentials (RSE)

CCNA R&S: Routing and Switching Essentials (RSE) covers the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality.

By the end of the course, students will be able to:

- Determine how a router will forward traffic based on the contents of a routing table.
- Explain how switching operates in a small to medium-sized business network.
- Use monitoring tools and network management protocols to troubleshoot data networks.
- Configure monitoring tools available for small to medium-sized business networks.
- Configure initial settings on a network device.
- Configure Ethernet switch ports.
- Implement VLANs.
- Implement static routing.
- Implement DHCP on a router.
- Implement network address translation (NAT).
- Implement access control lists (ACLs) to filter traffic.

Certification and Careers

The CCNA Routing & Switching curriculum helps students develop workforce readiness skills and builds a foundation for success in networking-related careers and degree programs.

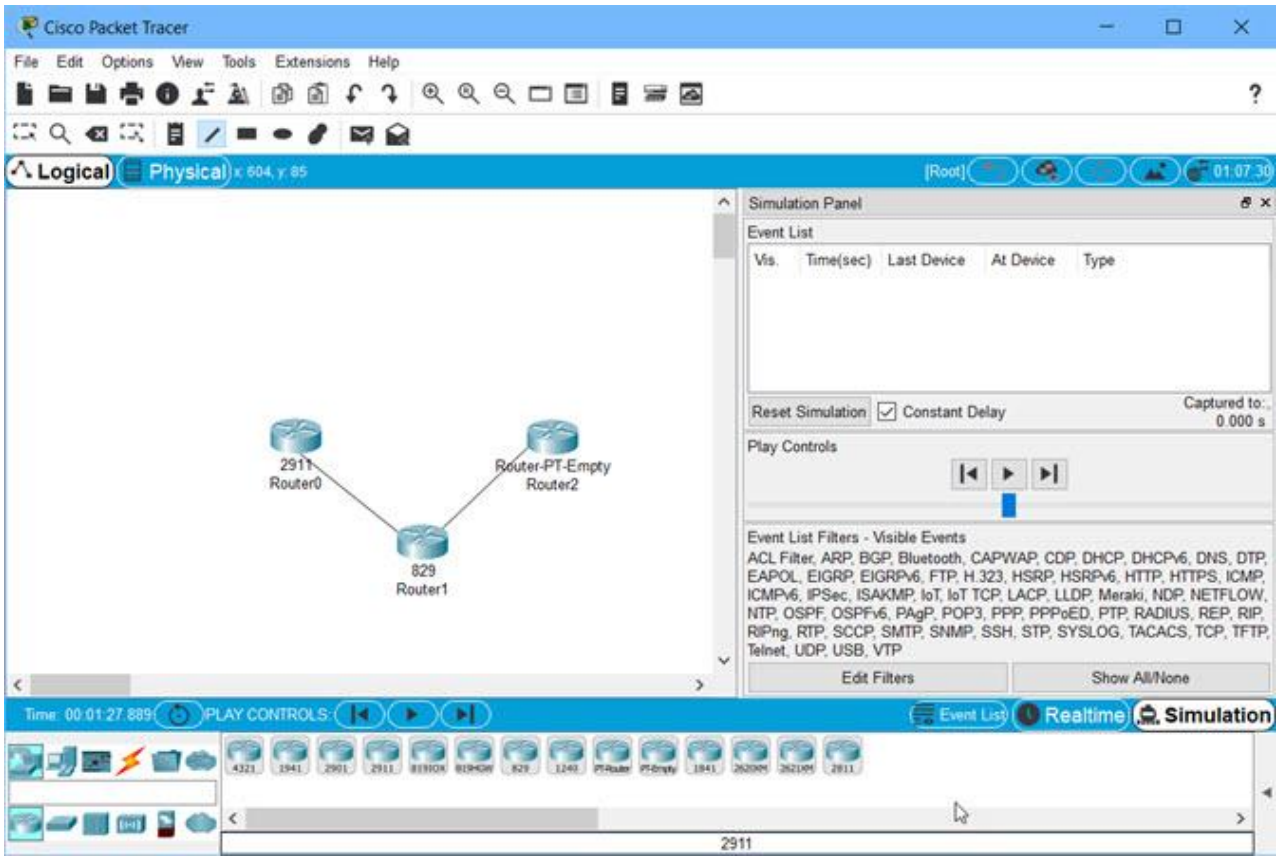
CISCO PACKET TRACER

Overview

Packet Tracer is an innovative network configuration simulation and visualization tool used for activities and assessment in many Cisco Networking Academy courses:

The benefits of using Packet Tracer include:

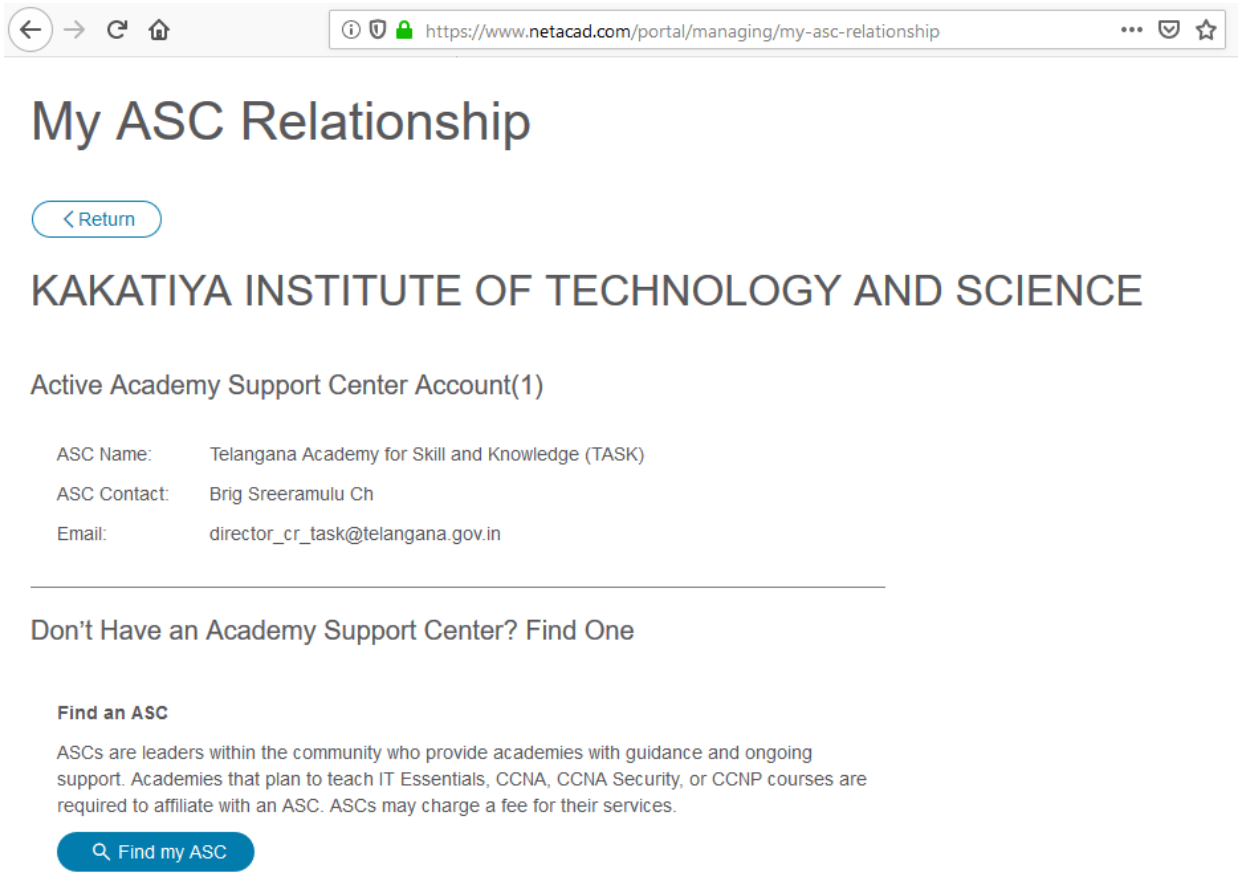
- Supplement classroom equipment with realistic simulations and visualize internal processes in real-time
- Multiuser, real-time collaboration and competition for dynamic learning
- Authoring and localization of structured learning activities such as labs, demonstrations, quizzes, exams, and games
- Students explore concepts, conduct experiments, and test their understanding of network building
- Design, build, configure, and troubleshoot complex networks using virtual equipment
- Can be used for lectures, group and individual labs, homework, games, and competitions
- Supports feature expansion through external applications using an API



CISCO PACKET TRACER : SIMULATION & VISUALIZATION TOOL

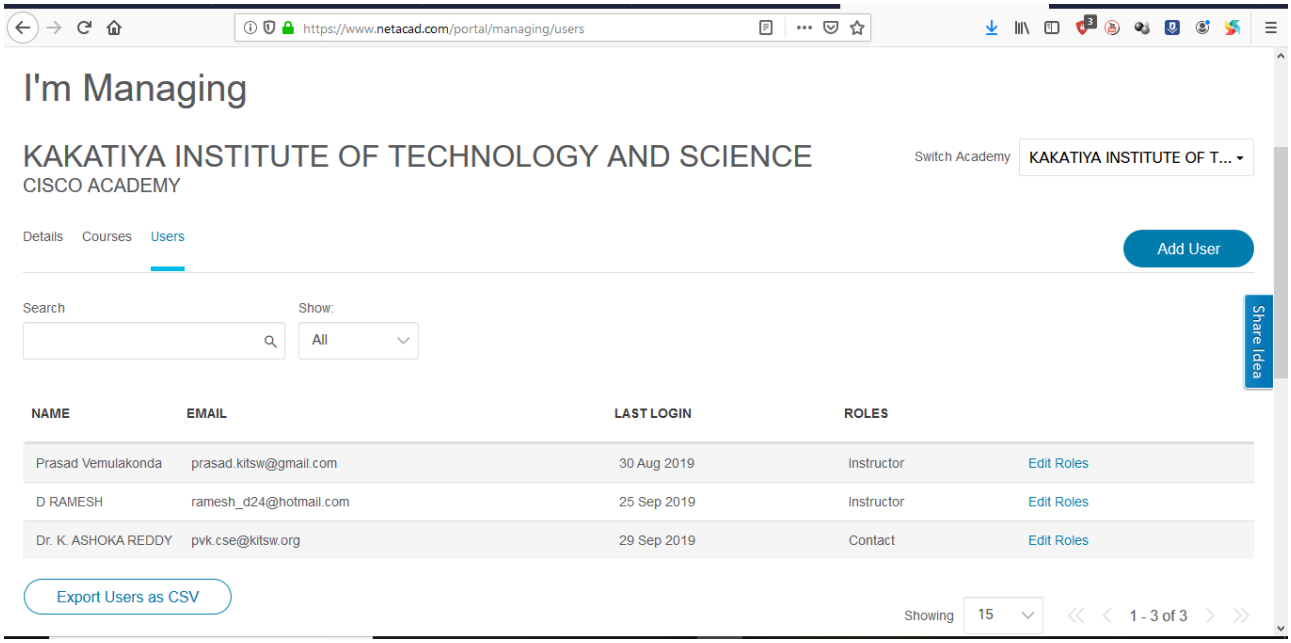
KITSW - Cisco Networking Academy

Academy Support Centre (ASC) details.



KITSW - Cisco Networking Academy

NetAcad active User details: Principal(Contact), Instructors



CISCO Qualifies Instructors: (1) D.Ramesh, Assistant Professor, (2) V.Prasad, Programmer, Dept of CSE

KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE – WARANGAL

***is now an official partner of* CISCO**