NS3EDU.

Learn Today $ Earn Tomorrow

SD-WAN, OSPF & BGP MASTERY

COURSE OUTLINE

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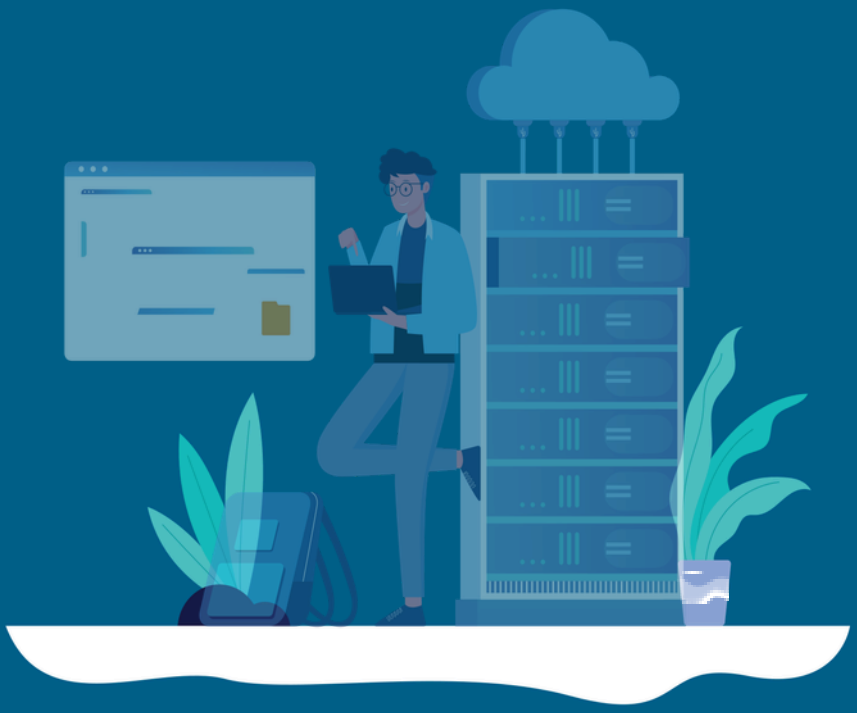
NS3EDU: BRIDGE YOUR IT DREAMS TO REALITY



EMPOWERING CAREERS THROUGH KNOWLEDGE

Lookingto makeitbigin the world of IT networking? Look no further than NS3Edu! We help beginners learn the ropes & experienced pros master new skills. Come join us and build your dream career!

MISSION

Themissionof NS3Eduisto

empower our candidates with in-depth knowledge of IT fundamentals along with real-time industry experience and also take 100% responsibility for the placement by making them Industry fit.

CERTIFICATES

VISION

In-depth knowledge + hands-on experience + analytical thinking = placement

ROADMAP OF JOB PLACEMENT

Confused in **Different** Career Options

Career Diagnosis System

Counselling & Demo sessions

Student **Enrollment** & **Induction** session

Course Kick off **(Live Classes)**

Access to Recorded Sessions, **E book & Lab Manual**

Qualifies- Job Placement

Opportunities for **Job Placement**

Screening by **Corporate HR** & **Tech Team**

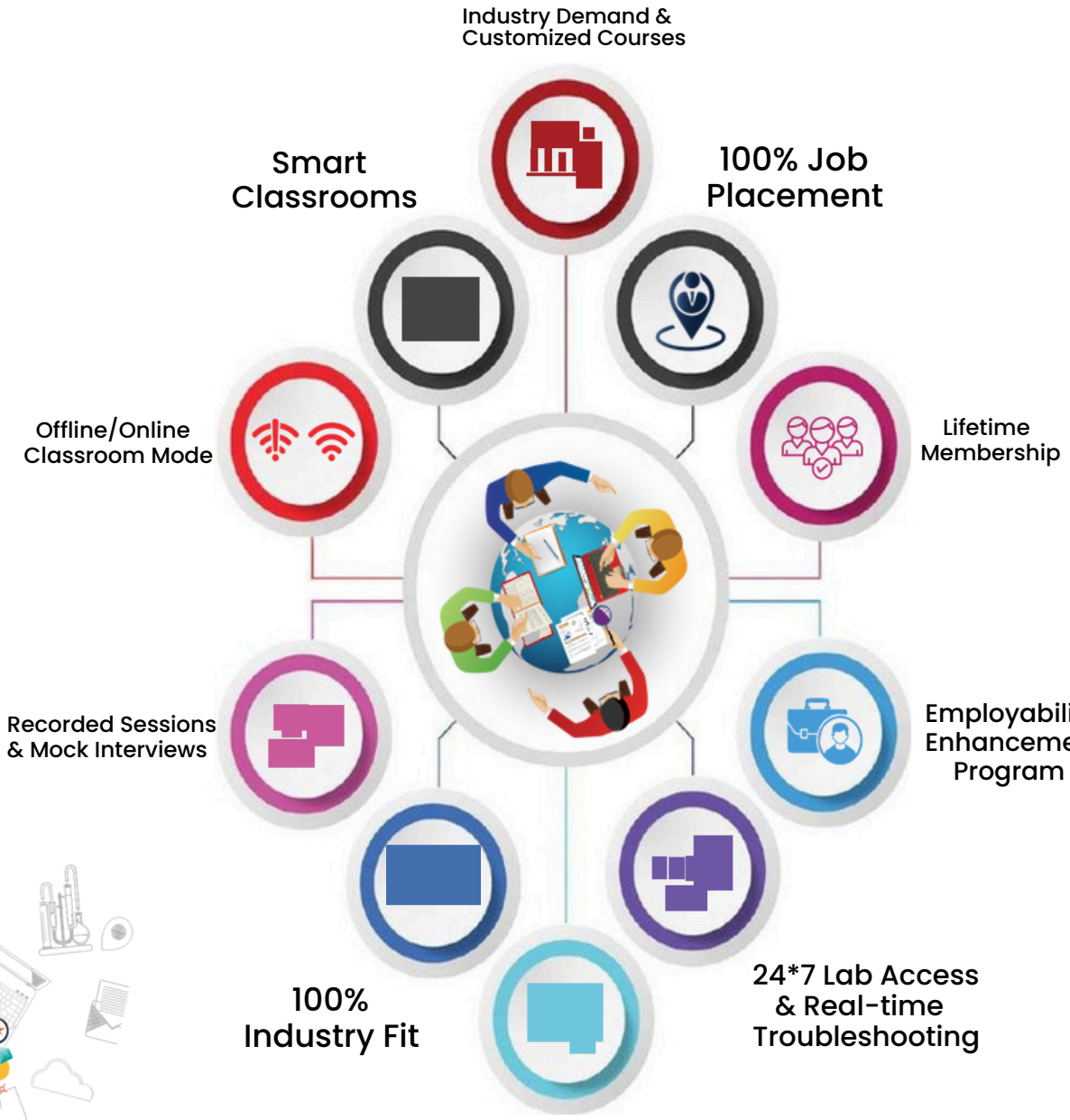
2 Week **Technical** Task Training

NS3 Tech Industrial Exposure

Course Completion

WHAT MAKES US UNIQUE?

USP'S



Course Outline

LEVEL 1: Routing & WAN Foundations (Intermediate Level)

Part 1: WAN & Enterprise Connectivity Basics

- Evolution of WAN Technologies
- MPLS vs Internet vs SD-WAN
- Enterprise WAN Challenges
- Underlay vs Overlay Concepts

Part 2: OSPF Fundamentals

- OSPF Overview
- OSPF Packet Types
- OSPF Neighbor Adjacency
- DR / BDR Election
- OSPF Cost & Metrics

Part 3: OSPF Multi-Area Design

- OSPF Areas & Area Types
- Backbone Area (Area 0)
- Stub, Totally Stub & NSSA
- Route Summarization
- OSPF Design Best Practices

Part 4: WAN Redundancy Concepts

- WAN Failover Techniques
- Path Selection Basics
- Load Sharing vs Load Balancing
- SLA-Based Routing

LEVEL 2: BGP & Advanced Routing (Professional Level)

Part 5: BGP Fundamentals

- What is BGP & Why It's Used
- iBGP vs eBGP
- BGP Path Attributes
- BGP Neighbor Relationships

Part 6: BGP Policy Control

- Weight, Local Preference
- AS-Path, Origin, MED
- Prefix Filtering
- Route Maps
- Traffic Engineering

Part 7: BGP in Enterprises & ISPs

- Internet Edge Design
- Multi-Homing Scenarios
- Default vs Full Routing
- BGP Security Basics

Part 8: OSPF & BGP Redistribution

- Redistribution Concepts
- OSPF ↔ BGP Redistribution
- Route Filtering & Loop Prevention
- Real-World Redistribution Scenarios

LEVEL 3: SD-WAN & Modern WAN Architecture (Expert Level)

Part 9: SD-WAN Architecture

- What is SD-WAN
- Control Plane, Data Plane & Management Plane
- Centralized Policy Control
- SD-WAN Components

Part 10: SD-WAN Deployment & Policies

- Underlay Network Design
- Overlay Tunnel Formation
- Application-Aware Routing
- Traffic Steering Policies
- SLA & QoS in SD-WAN

Part 11: SD-WAN Security

- Secure WAN Design
- Integrated Firewall Concepts
- Segmentation & VPNs
- Zero Trust WAN Basics

Part 12: SD-WAN High Availability & Optimization

- Active-Active Links
- Failover & Fast Convergence
- Performance Monitoring
- Bandwidth Optimization

Part 13: Monitoring & Troubleshooting

- Routing Protocol Troubleshooting
- OSPF Neighbor Issues
- BGP Route Selection Problems
- SD-WAN Monitoring Tools
- Real Incident Scenarios

Part 14: Real-World Enterprise Projects

- Enterprise OSPF Multi-Area Network
- Internet Edge with BGP
- Dual ISP Multi-Homing
- SD-WAN Branch Connectivity Project
- WAN Failover & Optimization Case Study

Part 15: Career & Certification Preparation

- Enterprise / ISP Network Engineer Roles
- Interview Questions (OSPF, BGP, SD-WAN)
- Design & Troubleshooting Scenarios
- Resume & Lab Portfolio Guidance
- Mock Interviews

OUR PLACEMENT PARTNERS