SRINIVAS UNIVERSITY

Educating the Next Generation...

NEW-AGE B.Tech PROGRAMS FOR NEW-AGE CAREERS

Industry Partner

iNURTURE Education Solutions

TOMORROW'S HERE

www.inurture.co.in/srinivas

Chancellor's Message

The hard work of 27 years has borne fruit. It is indeed an honour and a great moment in time for me to be at the helm of affairs as Srinivas University takes shape. The nation is peaking towards phenomenal growth and time couldn't be better for all of us; including the final stakeholders i.e. students learning diverse disciplines such as Medicine, Dentistry, Nursing, Engineering, Management, Pharmacy, Para Medical Sciences, etc. in the numerous constituent colleges and I'm certain, that with proper guidance and motivation, this sparkling energy can be channelized for the utilization of building the nation.

We have made giant strides in the recent past and are proud to say that more than 35,000 alumni have passed through the portals of our temples of learning.

Our university presently has 78 programs and 12,000 students who are engaged in critical thinking, innovation and professional skills. While creating fertile minds for professional and personal success, we are further committed to craft responsible citizens who are the embodiment of high ethics and social conduct.

I am extremely pleased that the quality of our graduates is recognized by employers in public and private sector, who offer jobs to our students even before the announcement of results. Our alumni are contributing tremendously in their professions and with value additions, earned high-ranking positions in public and private sectors; nationally and internationally.

As I welcome the new entrants to be a part of this growing university, I am sure that we will sustain our rich heritage and be proud to deliver quality manpower keeping in mind our social mission.

CA A. Raghavendra Rao
Chancellor and Founder
Srinivas University

About Srinivas University

Srinivas University is a Private Research University in Mangalore established in 2013 by Karnataka State Act. Srinivas University is the flagship of 18 Srinivas Group of Institutions started by A. Shama Rao Foundation a private Charitable Trust founded in 1988 by an eminent Chartered Accountant A. Raghavendra Rao. A. Shama Rao Foundation has started many professional colleges in Mangalore. Presently, Srinivas University offers undergraduate, postgraduate, and research courses under 8 Faculties/Colleges with about 60 courses. The University made innovations in designing and starting new super speciality programs both in UG and PG levels as per present and future industry relevance. The University has established a network with many industries, universities, and Education service providers to substantially improve the quality and weightage of the courses.

About iNurture Education Solutions Pvt. Ltd.

iNurture is a pioneer in enabling career-ready formal higher education in India. iNurture powers new-age undergraduate and postgraduate programs of premium Indian and global universities through its unique University-Industry Partnership (UIP) model. iNurture also leverages its strong industry association by providing guest lectures, internships, curriculum design assistance, industrial visits, live projects, and placement assistance. iNurture strives to strengthen the 'employability quotient' across the complete spectrum of adult learning – from college to corporate.

With a pan-India presence and association with leading institutions in Europe and Asia, iNurture focuses on fast-growing domains that are specifically designed to 'intelligently nurture' students for emerging industries and prepare them for 'new' collar jobs. iNurture, through its KRACKiN platform, helps students improve their employability and engage with industry.

Srinivas University and iNurture Education Solutions Collaboration

Srinivas University and iNurture Education Solutions have come together to offer advanced, career-ready undergraduate programs in fast-growing new-age industry sectors.

B.Tech CS Cloud Technology and Information Security

About the Program

The IT world is transforming rapidly and it has made it necessary for students who aspire for a career to have knowledge of those subjects that are relevant to the current industry. There have been various innovations in IT that have had huge impact on the business world. Cloud technology is one such innovation that has paved way for great opportunities and today there is a huge market for cloud based products. It has altered the way IT resources is purchased by organisations. The industry requires professionals who have the fundamental knowledge that can enable them to shoulder responsibilities and contribute to the growth further. With digitalization of business operations, the need for information protection has also grown significantly in the recent times. Today, security breach incidents are costing organisations in billions of dollars. Companies are badly in need of engineers who can ensure the protection of their networks and systems. With demand for new-age professionals rising, Srinivas University has worked towards introducing programs that are relevant to the industry. B.Tech CS Cloud Technology and Information Security is one of its offerings that is designed keeping in mind the knowledge needs of the future.

Program Objectives

The program is designed with inputs from industry veterans. It combines theoretical sessions, practical classes, projects and seminars that can keep students well prepared for contemporary job roles.

- ✓ Learn the fundamentals of computer networks, C programming, operating systems and information security
- ✓ Gain exposed to concepts of data structures, DBMS, object oriented programming using Java and network administration
- ✓ Learn thoroughly about network security, cryptography, ethical hacking and server administration and virtualization
- ✓ Participate in real-world projects and seminars to gain knowledge of industry

Eligibility

The student should have passed the 10+2 or equivalent examination with Physics, Mathematics and English as compulsory subjects along with Computer or Chemistry or Biotechnology or Biology or any technical vocational subjects as optional with a minimum of 60% marks (55% in case of SC/ST) taken together in Physics, Mathematics and any one of the optional subjects.

Course Duration

4 Years | Full-time

Curriculum*

Semester 1

Engineering Mathematics -I
Engineering Physics
Elements of Electronics Engineering
Elements of Mechanical Engineering
Computer Concepts and C Programming
Engineering Physics Laboratory
Computer Concepts and C Programming Laboratory
Personality Development and Communication

Semester 2

Engineering Mathematics -II
Engineering Chemistry
Basics of Electrical Engineering
Elements of Civil Engineering
Elements of Engineering Graphics
Engineering Chemistry Laboratory
Workshop Practice
Principles of Environmental Studies
Constitution of India and Professional Ethics

Semester 3

Database Management Systems
Computer Networks
Operating Systems
Data Structures and Algorithms
Information Security
Introduction to Cloud Computing
Database Management Systems Lab
Data Structures and Algorithms Lab

Semester 4

Object Oriented Programming using Java
Desktop Administration
Database Security
Network Security
Fundamentals of Storage and Datacentre
Network Administration
Desktop and Network Administration Lab
Object Oriented Programming using Java Lab

Semester 5

Cryptography
Ethical Hacking
Server Administration
Principles of Virtualization
Elective – I
Elective – II
Ethical Hacking Lab
Server Administration and Virtualization Lab

Elective – I

Hacktivism, Cyber warfare and Cyber Terrorism
Emerging Threats in Security
Cyber Security Incident Response Management
End Point Security Management

Elective – II

Cloud Scripting using PaaS
Developing and Deploying Applications using PaaS
Python Programming
Infrastructure Solutions on Cloud

Semester 6

Linux Administration
Cloud Web Services
Elective – III
Elective – IV
Cloud Security
Disaster Recovery and Business Continuity Management
Linux Administration Lab
Cloud Web Services Lab

Elective – III

Adaptive Security Architecture
Server Security
Security Architecture
Security of Ecommerce Application

Elective – IV

Hybrid Cloud Computing
Exploring SaaS
Delivering PaaS
Cloud Architectural Patterns

Semester 7

Software Engineering
Computer Forensics and Investigation
Application Security
Cloud Migration
Elective – V
Elective – VI
Computer Forensics and Investigation Lab
Elective – VI Lab

Elective - V

Mobile, Wireless and VOIP Security
OSI Layer Security Protocols
OWASP Framework
Android Security

Elective - VI

Infrastructure Containers
Cloud Deployment and Management
Infrastructure Automation
Automation Configuration and Management

Semester 8

COBIT VALIT RISKIT and Information Security Governance
ITIL Framework
Internship Review
Project Work
Technical Seminar

* Subject to changes if any

Career Progression Path for B.Tech Graduates in Cloud Technology Domain ^

	Entry Level (0-2 yrs exp)	Mid Level (2-5 yrs exp)	Senior Level (5+ yrs exp)
Average Salary	INR 2,00,000-5,00,000	INR 5,00,000-8,000,000	INR 8,00,000+
Job Role	Cloud Operations Engineer Cloud Network Engineer Cloud Administrator Virtualization – Systems Engineer Network Administrator Storage Administrator System Administrator Application Developer Application Administrator	Senior Cloud Support Engineer Cloud Operations Engineer – Management System Integration Specialist Virtualization – Senior Engineer Cloud Consultant Infrastructure Manager DevOps Engineer Solution Architect	Cloud Consultant Manager–Cloud Technology Data Centre Manager Sr. Data Centre Manager Manager–Cloud Security
Self-employment	Compensation commensurate with the efforts put in		

^ Information taken from public domain

Career Progression Path for B.Tech Graduates in Information Security Domain ^

	Entry Level (0-2 yrs exp)	Mid Level (2-5 yrs exp)	Senior Level (5+ yrs exp)
Average Salary	INR 2,00,000-5,00,000	INR 5,00,000-8,000,000	INR 8,00,000+
Job Role	Cyber Security Analyst/Specialist Analyst –End point Security Analyst –Security Ops Center &SIEM Penetration tester/ Ethical Hacker Analyst-Web Application security Security Engineer Cyber Security Forensic Analyst Cyber security Risk Specialist Cyber Security Analyst Compliance Cyber Security –Presales Analyst	Cyber Security Consultant Cyber Security –Threat Intelligence And Analytics Cyber Security –Vulnerability Researcher & Exploit Developer Application Security Consultant Security Administrator Cyber security –Crime Investigator Cyber Security Risk Management Consultant Cyber Security Compliance Auditor Cyber Security –Technical Sales Consultant	Cyber Security Manager Cyber Security-Enterprise Risk Manager Cyber Security –Senior Auditor –Compliance Cyber Security –Technical sales Manager Cyber security- Technical sales Manager
Self-employment	Compensation commensurate with the efforts put in		

^ Information taken from public domain

B.Tech CS Data Science

About the Program

Digitalization of business operations across various industries has led to the rise of many innovative solutions that are adopted by companies. There is humungous amount of data generated from organizations every second and there is dire need for aggregation, cleaning up and management of data. The fact that data can be analysed to come up with insights that enable organizations to make strategic business decisions has drawn the attention of business world. Today, organizations are investing in data science in order to gain competitive advantage and serve their consumers better. There is great demand for qualified professionals in data science domain and the need for new-age programs has led Srinivas University to offer B.Tech CS Data Science which is a program that is designed to cater to industry needs.

Program Objectives

Students are exposed to new-age subjects and concepts through the program. The teaching methodology includes both theoretical and practical sessions, thereby providing students insights into real-world scenario.

- ✓ Gain fundamental knowledge of computer concepts and C programming, data structure and algorithms, DBMS and UNIX and computer networks
- ✓ Gain exposure to concepts of statistics and probability, exploratory data analysis, R programming and machine learning

- ✓ Learn in-depth about big data analytics, visualization techniques, advanced optimization techniques and NoSQL database

Eligibility

The student should have passed the 10+2 or equivalent examination with Physics, Mathematics and English as compulsory subjects along with Computer or Chemistry or Biotechnology or Biology or any technical vocational subjects as optional with a minimum of 60% marks (55% in case of SC/ST) taken together in Physics, Mathematics and any one of the optional subjects.

Course Duration

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Curriculum*

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Computer Concepts and C Programming
Engineering Physics Laboratory
Computer Concepts and C Programming Laboratory
Personality Development and Communication

Semester 2

Engineering Mathematics-II
Engineering Chemistry
Basics of Electrical Engineering
Elements of Civil Engineering
Elements of Engineering Graphics
Engineering Chemistry Laboratory
Workshop Practice
Principles of Environmental Studies
Constitution of India and Professional Ethics

Semester 3

Statistics and Probability - I
Introduction to Data Science
Data Structures and Algorithms
Database Management Systems
Object Oriented Programming using Java
Computer Networks
Data Structures and Algorithms Lab
Object Oriented Programming using Java Lab

Semester 4

Statistics and Probability - II
Linear Algebra
Exploratory Data Analysis
Big data Analytics – I
R Programming Language
Sampling Techniques
Big data Analytics – I Lab
Exploratory Data Analysis– Lab

Semester 5

Inferential Statistics
Machine Learning - I
NoSQL Database
Python for Data Science
Elective – 1
Elective – 2
NoSQL Database Lab
Python for Data Science Lab

Elective-I

Cloud Computing
Artificial Intelligence
Internet of Things (IOT)
Mobile Computing

Elective-II

Data Analytics using SQL
Business Intelligence
Expert System
Security Analytics

Semester 6

Machine Learning - II
Big Data Analytics - II
Elective – III
Elective – IV
Dimension Reduction Techniques
Artificial Neural Networks
Machine Learning – II Lab
Big Data Analytics – II Lab

Elective-III

Multivariate Statistical Analysis
Digital Image Processing
Time Series Analysis
Probabilistic Graphical Models

Elective-IV

Big Data Analytics on Cloud
Real Time Data Processing
Data Mining Techniques
Data Analytics using Advanced SQL

Semester 7

Visualization Techniques
Optimization Techniques
Model Validation Techniques
Security and Privacy for Data Science
Elective – V
Elective – VI
Model Validation Techniques Laboratory
Visualization Techniques Laboratory

Elective V

Natural Language Processing
Advanced Machine Learning
Deep Learning
Reinforcement Learning

Elective VI

Social Media Analytics Using R
Predictive Analytics using Python
Recommender System
Pattern Recognition

Semester 8

Advanced Optimization Techniques
Design and Analysis of Experiments
Internship Review
Project Work
Technical Seminar

* Subject to changes if any

Career Progression Path for B.Tech Graduates in Data Science Domain ^

	Entry Level (0-2 yrs exp)	Mid Level (3-5 yrs exp)	Senior Level (5+ yrs exp)
Average Salary	INR 4,00,000-8,00,000	INR 6,00,000-12,000,000	INR 12,00,000+
Job Role	Data Engineer Associate Data Analyst Junior Data Analyst Machine Learning Engineer Associate Business Analyst	Data Management Lead Associate Data Scientist Enterprise Sr. Data Analyst Sr. Engineer – Machine Learning Associate Data Miner	Data Architect Lead Data Scientist Enterprise Data Manager Technical Lead / Technical Manager / Project Manager
Self-employment	Compensation commensurate with the efforts put in		

^ Information taken from public domain

Market and Career Potential – New-Age Domains

Cloud Technology

- ✓ India's cloud market expected to be worth $4.1 billion by 2020 – SAP
- ✓ Cloud computing may generate 1.1 million jobs in India by 2022 – Study by IDC

Information Security

- ✓ India's cyber security market to grow up to $35 billion by 2025 - Gulshan Rai, Cyber Security Chief, PMO
- ✓ India needs 3 million cyber security professionals while the supply is not even 100,000 at present – IBM

Data Science

- ✓ Demand for Data Science professionals in India is up by 417% in 2018 – TSI report by Belong.
- ✓ According to a NASSCOM report, big data analytics sector in India is expected to grow from $2 billion to $16 billion by 2025.

Industry Endorsements

"We believe our association with your campus will help in building a qualified talent pool, further emphasising the importance of collaboration in helping our clients build a stronger business. We are confident that this partnership will help us gain access to top-level talent and keep us differentiated as the 'employer of the choice'."

- Abhinav M Joshi, Campus-HR, Cognizant

"Today organizations have global customers and their employees are working in different geographical locations. Companies want to focus on their core business and are looking for better operating cost for their IT infrastructure. Cloud gives the benefits of scale, availability and ease of management.

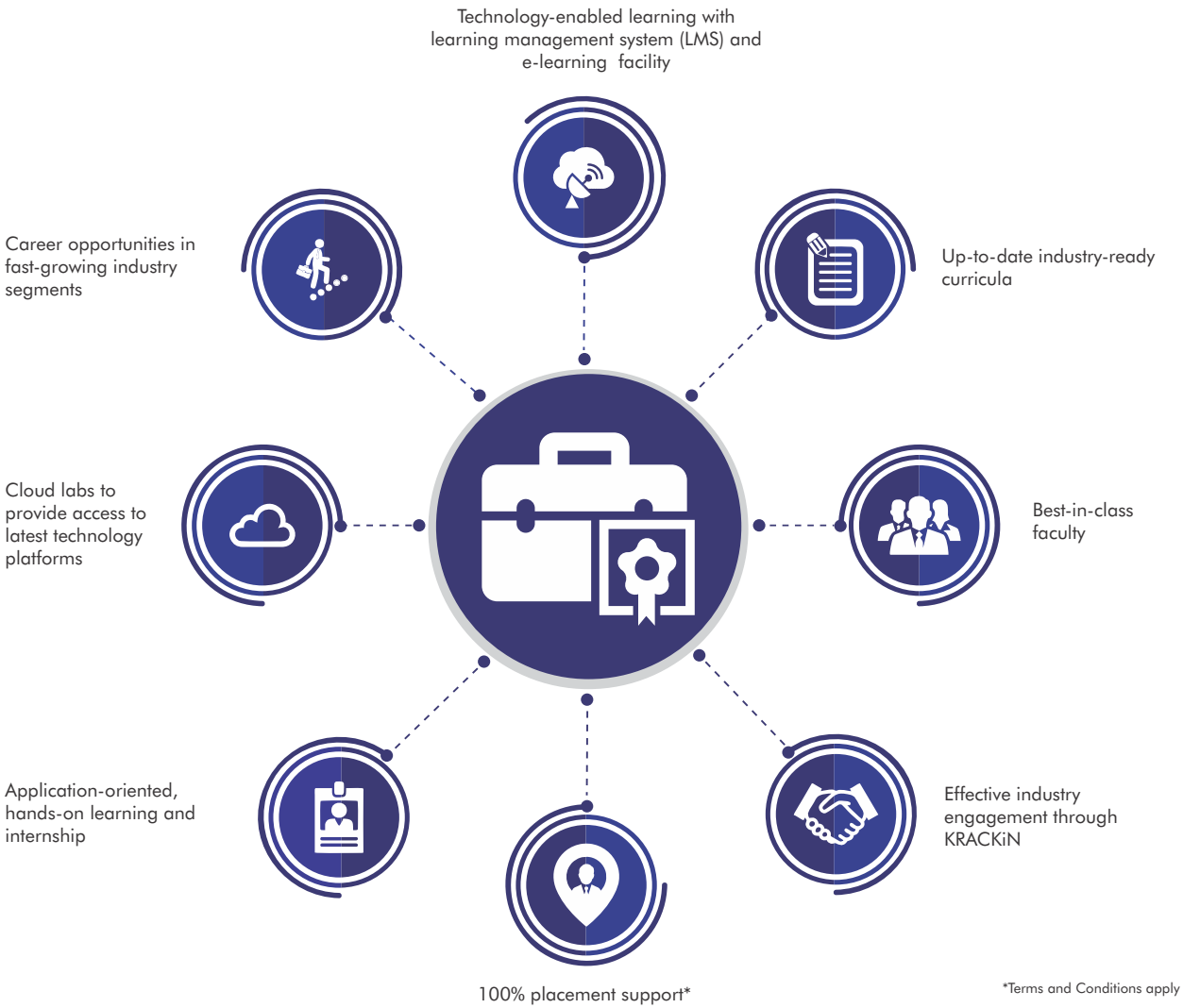
This course content will make the students ready for future technologies and exposing them at early stage will help us to encourage innovation in this field. The course is very comprehensive and covers different aspects of IT. This will help the students to get all rounded exposure. Great initiative by iNurture."

- Divya Jain, Regional Director - India Enterprise Business, Akamai

"Most other professional domains are saturated, and new-age courses give students an opportunity to explore blue ocean careers where growth opportunities are aplenty because they are new and not saturated. Additionally, everything in the physical form in terms of information is being converted to a digital form, so a cyber-security professional will surely be in demand in the time to come, and there is already an increasing industrial demand for trained cyber security professionals."

- Advocate Puneet Bhasin, Cyber Law Expert, Cyberjure legal Consulting

Why Choose These Programs?



*Terms and Conditions apply

Partial List of our Recent Recruiters*

*T&C apply

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Industry Partner

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