



# PSG COLLEGE OF TECHNOLOGY

COIMBATORE



## DEPARTMENT OF APPLIED MATHEMATICS AND COMPUTATIONAL SCIENCES

5 year integrated

**M. Sc.**

DATA SCIENCE

SOFTWARE SYSTEMS

THEORETICAL COMPUTER SCIENCE

Information  
Brochure  
(2019 - 2024)

## The College

PSG College of Technology, an institution par excellence today, was founded in 1951 by the PSG & Sons Charities. The College has been in the vanguard of innovation in technical education, and over the years has taken giant strides and transformed itself into a prestigious centre for advanced studies in several faculties of Engineering, Technology, Applied Sciences, Management Studies, and Computer Science & Applications.

Recognizing the excellent facilities, faculty, progressive outlook, high academic standards and record performance, the University of Madras reposed abundant confidence in the capabilities of the College, and PSG College of Technology was conferred the Autonomous Status in 1978, to update its own courses and curriculum, to devise and conduct examinations, and to evaluate students' performance based on a system of continuous assessment. Sedulous progress has been the hallmark of PSG College of Technology.

Under the able guidance of illustrious Managing Trustees, Late G. R. Govindarajulu, Late Dr. G. R. Damodaran, Late G. Varadharaj, Sri. G. R. Karthikeyan, Late V. Rajan, Sri. G. Rangaswamy and Sri L. Gopalakrishnan, the college is standing as a landmark in the field of technical education in the country.

The growth and development of the college owed much to the untiring efforts of Dr. G. R. Damodaran, Founder Principal of PSG College of Technology. Dr. G. R. Damodaran, was followed by Dr. R. Subbayyan, Dr. K. Venkataraman, Dr. A. Shanmugasundaram, Dr. S. Subramanyan, Dr. P. Radhakrishnan, Dr. S. Vijayarangan as successive Principals. Presently Dr. R. Rudramoorthy is the Principal of the Institution.

## Vision of the College

PSG College of Technology aspires to be recognized as one of the leaders in engineering education, research and application of knowledge to benefit society.

## Mission of the College

Our mission as an Institution is to provide world-class engineering education, foster research and development, evolve innovative applications of technology, encourage entrepreneurship and ultimately mould young men and women capable of assuming leadership of the society for the betterment of the country.

PSG College of Technology today has a student strength of nearly 9,000 and has the following branches and / or discipline.

- Apparel and Fashion Design
- Applied Mathematics and Computational Sciences
- Applied Science
- Automobile Engineering
- Bio-Medical Engineering
- Bio-Technology
- Chemistry
- Civil Engineering
- Computer Applications
- Computer Science and Engineering
- Electrical and Electronics Engineering
- Electronics & Communication Engineering
- English
- Fashion Technology
- Humanities
- Information Technology
- Instrumentation and Control Engineering
- Management Sciences
- Mathematics
- Mechanical Engineering
- Metallurgical Engineering
- Physical Education
- Physics
- Production Engineering
- Robotics and Automation Engineering
- Textile Technology

## Eligibility and Admission Procedure

A pass in Higher Secondary Examination with Mathematics and Physics as two of the four subjects of study.

Shortlisted candidates with an excellent academic record in Higher Secondary examination or equivalent with Mathematics and Physics as two of the subjects of study are assessed by an online test (English / Tamil) to be conducted on 11th FN June 2018 at PSG Tech campus. Candidates short listed in the online test and judged by their performance in an interview cum counseling on 11th AN and 12th June 2018, are admitted to the programmes.

The online test will be based on Higher Secondary Mathematics portions of Applications of Matrices and Determinants, Functions and Graphs, Differential Calculus, Integral Calculus, Differential Equations, Analytical Geometry, Vector Algebra and Probability.

A call for Test / Interview does not however confer any right of admission. Only candidates with very high academic record and have SPARK are selected for admission.

## The Department

The Department of Applied Mathematics and Computational Sciences comprises of dedicated faculty members who are undoubtedly the assets worthy of mention. The Department is known for its discipline and for the importance it gives to the overall development of students in grooming them towards becoming good software professionals, research scientists and data analysts. The Department has its own library with latest books, national and international journals and magazines. The computer centre is well equipped with the most recent hardware and software. To keep in touch with the ever - growing technology, the faculty members participate regularly in refresher courses and symposia conducted by top notch Universities, Research Institutions and Professional Bodies like Association for Computing Machinery. The department organizes technical symposia at national and international levels at regular intervals. Apart from stressing on consistent and good academic performance, the department encourages participation in co-curricular and extracurricular activities to bring out the latent talents in its students. The students are provided with ample opportunities to improve their organizational skills and group dynamics.

## Mission of the Department

The fundamental objective of the department is to develop quality professionals by providing concept oriented subject knowledge through high quality teaching supplemented with practical training. Apart from specialized knowledge and skills, the programmes conducted by the department aim to develop all-round personality by inculcating values such as honesty, sincerity, team spirit and work culture.

## Vision of the Department

**“Stay ahead and  
be relevant”**

## The Programmes

PSG College of Technology introduced the Five year integrated M.Sc. Software Engineering programme for the first time in the country during the year 1997 which has been well received by leading software industries across the globe. Under the autonomous scheme, the programme aims to develop the students with the knowledge and skill to apply computers for productive work in business, scientific applications in industry and research laboratories, and for higher learning. The course has been designed to meet the challenging needs of the industry, by giving ample opportunities for the students to undertake projects in the industries as part of the curriculum. A core of material to ensure good understanding of systems and software design and development has been included in the curriculum. The programme has been renamed as Software Systems since 2014.

Computer Science discipline faces many challenges because key research areas emerge quickly and technology has been growing exponentially. There has been a steadily increasing demand for graduates with research bent of mind. "Research is creating new Knowledge", said Neil Armstrong. With this in mind, five year M.Sc. Theoretical Computer Science programme was started in 2007 and the curriculum has been designed to augment human resources for innovations in the R&D division of software houses and to showcase their deep pool of young talents in the higher educational options in top notch universities across the globe.

Myriad growth of technology generates a huge volume of data in many fields, from medicine, to marketing to scientific research. Data Science is the digital frontier to process these vast quantities of data. Data science encompasses the scalable techniques for Big data analysis and Interdisciplinary research areas. The Five year integrated M.Sc. Data Science is the first integrated data science programme in India, introduced by PSG College of Technology in the year 2015 to meet the challenges of Data driven era.



# Faculty

**Dr. R. Nadarajan** M.Sc., Ph.D  
Data Mining, Stochastic Models

**Dr. N. Geetha** MCA, M.Phil., Ph.D  
Computer Vision, Image and Video Processing, Soft Computing

**Dr. G. Sai Sundara Krishnan** M.Sc., M.Phil., Ph.D  
Applied Mathematics, Fuzzy Softset, Topology

**Dr. R.S. Lekshmi** M.Sc., M.Phil., Ph.D  
Graph Theory, Graph Algorithms

**Dr. M. Senthil Kumar** M.Sc., M.Phil, Ph.D  
Stochastic Models, Epidemic models over Complex Networks

**Dr. N. Mohanraj** MCA, M.Phil., Ph.D  
Distributed Pair Programming

**Dr. Suresh Balusamy** M.Sc., Ph.D  
High Performance Computing, GPGPU Computing

**Dr. R. Vijayalakshmi** MCA, M.Phil, Ph.D  
Data Mining, Graph Mining

**Dr. RM. Periakaruppan** M.Sc., MCA, Ph.D  
Data Mining, XML Structural Mining

**Dr. Shina Sheen** MCA, Ph.D  
Information Security, Data Mining, Network Security, TCP/IP Networks

**Dr. B. Malar** MCA, M.Phil., Ph.D  
Machine Learning, Natural Language Processing, Metaheuristic Algorithms

**Ms. S.D. Suganthi** B.E, MCA, M.Phil  
Wireless Sensor Networks, Network Security

**Mr. A. Muthusamy** M.Sc., M.Phil  
Roughset Theory

**Dr. V. Senthilkumaran** M.Sc., M.Phil., M.Tech., Ph.D  
Semantic Web Services

**Dr. N. Rajamanickam** MCA, Ph.D  
Cryptography, Network Security

**Dr. M. Dominic Savio** MCA, M.Phil, Ph.D  
Data Mining

**Ms. G. Priyalakshmi** MCA, MBA  
Software Design, Software Patterns, VLSI Algorithms and Testing

**Dr. R. Latha** M.Sc., MCA, M.Phil, Ph.D  
Machine Learning

**Dr. K. Mohan** MCA., Ph.D  
Cloud Computing, Component Based Software Engineering

**Ms. P. Thanalakshmi** M.Sc., M.Phil.  
Cryptography

**Dr. S. Poomagal** M.Sc., Ph.D  
Data mining, Information Retrieval

**Dr. M. Thilaga** M.Sc., M.Phil, Ph.D  
Graph Mining

**Dr. G. Poonthalir** MCA, Ph.D  
Vehicle Routing Algorithm, Computational Intelligence, Metaheuristic Algorithms

**Dr. M. Sasikumar** MCA., M.Phil., Ph.D  
Wireless Sensor Network

**Dr. A. Kaja Mohideen** MCA, M.Phil., Ph.D  
Data Mining, Medical Image Processing, Optimization Techniques

**Ms. N. Brindha** MCA, ME (CSE)  
Intelligent Information Retrieval, Image and Video Processing

**Dr. M. Megala** MCA, M.Phil, Ph.D  
Web Security

**Dr. V. Suresh Kumar** M.Sc., M.Phil, Ph.D  
Security Protocols and Formal Methods, Authentication Protocols for WSN and RFID

**Ms. S. Anandhi** MCA, M.Phil  
Security Protocols, Natural Language Processing

**Dr. N.K.Sreelaja** MCA, Ph.D  
Cryptography, Bio-Crypto Systems, Swarm Intelligence

**Ms. M. Kasthuri Bai** MCA, M.Phil  
DBMS, Operating Systems

**Ms. S. Deepa** MCA, M.Phil  
Wireless Networks, VANET

**Dr. P. Nirmala** M.Sc., Ph.D  
Data Analytics, Data Mining, Swarm Intelligence

**Ms. K. Parisa Begum** MCA  
Pervasive Computing, Database Management

**Mr. M. Kumaresan** M.Sc, M.Phil  
Machine Learning

**Ms. R. Priya** M.Sc, M.Phil  
Data Structures, Network Security

**Dr. N. K. Sreeja** MCA., M.Phil., Ph.D  
Swarm Intelligence, Machine Learning, Pattern Recognition

**Dr. S. Jeevadoss** M.Sc., M.Phil., Ph.D  
Graph Theory

**Dr. T. Karthick** M.Sc Ph.D  
Stochastic Models

**Ms. K. Sivakami** M.Sc  
Internet of Things, Mobile Computing

**Ms. J. Kiruthika** MCA  
Data Communication Networks, Operating Systems

**Dr. D. Nishanthi** M.Sc., M.Phil., Ph.D  
Differential Equations

**Dr. R. Indhumathi** M.Sc., Ph.D

**Ms. S. Nalini** M.Sc., ME, M.Phil

**Dr. G. Kirubavathi** MCA, Ph.D

**Mr. M. Shakthiganesan** M.Sc., Ph.D

## Visiting Professors

**Dr. R. Anitha** M.Sc., M.Phil., Ph.D  
Graph Theory, Cryptography & Security in Computing

**Mr. A. Kalyana Sundaram** M.Com, ACMA  
Accounting and Financial Management

**Dr. V. Sundaram**  
Retd. Professor, PSG College of Technology

## SEMESTER 1

<b>Theory</b>	Calculus & Its Applications English for Professional Skills Applied Physics Analog & Digital Electronics C Programming
<b>Practical</b>	Engineering Graphics & Geometric Modelling C Programming Lab Applied Physics & Digital Electronics Lab Personality and Character Development

## SEMESTER 2

<b>Theory</b>	Applied Linear Algebra Probability & Statistics Data Structures Object Oriented Programming Computer Organization
<b>Practical</b>	Object Computing Lab Data Structures Lab Web Designing Lab Personality and Character Development

## SEMESTER 3

<b>Theory</b>	Mathematical Foundations of Comp. DataBase Management System Transform Techniques Design and Analysis of Algorithms Microprocessor & Embedded Systems
<b>Practical</b>	Design and Analysis of Algorithms Lab Embedded Systems Lab RDBMS Lab

## SEMESTER 4

<b>Theory</b>	Accounting & Financial Management Computer Networks and TCP/IP Operations Research Operating Systems Software Engineering Techniques
<b>Practical</b>	Computer Networks and TCP/IP Lab Mathematical Computing Lab(with R) Python Programming Lab

## SEMESTER 5

<b>Theory</b>	Unix Architecture & Programming Java Programming Machine Learning Object Oriented Analysis & Design Professional Elective I
<b>Practical</b>	Unix Shell & System Programming Lab Java Programming Lab Machine Learning Lab

## SEMESTER 6

<b>Theory</b>	Mobile Computing Artificial Intelligence Software Patterns Security in Computing Professional Elective II
<b>Practical</b>	Mobile Computing Lab Artificial Intelligence Lab Distributed Enterprise Computing Lab

## SEMESTER 7

Project Work I  
  
Industry Project

## SEMESTER 8

<b>Theory</b>	Information Retrieval Computer Vision & Image Analysis Software Project Management Professional Elective III Open Elective I
<b>Practical</b>	Information Retrieval Lab Computer Vision Lab Functional Programming Lab

### SEMESTER 9

<b>Theory</b>	Principles of Management & Behavioral Science
	Software Testing
	Principles of Compiler Design
	Professional Elective IV
	Open Elective II
<b>Practical</b>	Principles of Compiler Design Lab
	Software Testing Lab
	Capstone Project Lab

### SEMESTER 10

Project Work II

Industry Project

### PROFESSIONAL ELECTIVES

- Modeling & Simulation
- Modern Databases
- Software Metrics
- Parallel & Distributed Computing
- Data Compression
- Computer Graphics & Visualization
- Principles of Programming Languages
- Agile Software Development
- Pervasive Computing
- Semantic Web
- Cloud Computing
- Human Computer Interaction
- Social Network Analysis
- Advanced Computer Graphics
- Deep Learning
- Big Data Analytics
- Data Mining
- Natural Language Processing
- Data Science
- Internet of Things
- Advanced Systems Programming
- Statistical Learning
- Virtual and Augmented Reality

### OPEN ELECTIVES

- Entrepreneurship
- Computer Forensics
- Wireless Networks
- Randomized Algorithms
- Applied Graph Theory
- Network Forensics
- Applied Numerical Analysis
- Environmental Science and Green Computing
- Quantum Mechanics and Fundamentals of Quantum Computation
- Computational Foundations for Robotics
- Mathematical Modelling

## SEMESTER 1

<b>Theory</b>	Calculus and its Applications Applied Physics Analog & Digital Electronics Problem Solving & C Programming English for Professional Skills
<b>Practical</b>	Applied Physics and Digital Electronics Lab C Programming Lab Engineering Graphics & Geometric Modelling Personality and Character Development

## SEMESTER 2

<b>Theory</b>	Discrete Structures Complex Variables and Transforms Abstract Algebra Data Structures & Algorithms Object Oriented Programming
<b>Practical</b>	Computational Mathematics with Python Data Structures Lab Object Oriented Programming Lab Personality and Character Development

## SEMESTER 3

<b>Theory</b>	Linear Algebra Graph Theory Probability and Statistics Advanced Data Structures Computer Organization & Assembly Language Programming
<b>Practical</b>	Statistical Computing and R Programming Lab Advanced Data Structures Lab Assembly Language Programming Lab

## SEMESTER 4

<b>Theory</b>	Stochastic Processes Database Design Optimization Techniques Operating Systems Computer Networks & TCP/IP
<b>Practical</b>	Operating Systems Lab (LINUX) Computer Networks & TCP/IP Lab RDMBS Lab

## SEMESTER 5

<b>Theory</b>	Theory of Computing Computational Number Theory & Cryptography Software Engineering Design & Analysis of Algorithms Professional Elective - I
<b>Practical</b>	Scientific Computing Lab Design & Analysis of Algorithms Lab Java Programming Lab

## SEMESTER 6

<b>Theory</b>	Machine Learning Computer Graphics and Visualization Artificial Intelligence Security in Computing Professional Elective – II
<b>Practical</b>	Computer Graphics and Visualization Lab Artificial Intelligence Lab Security in Computing Lab

## SEMESTER 7

Project Work I  
  
Industry/Research Project

## SEMESTER 8

<b>Theory</b>	Game Theory Parallel & Distributed Computing Data Mining Professional Elective – III Open Elective – I
<b>Practical</b>	Parallel & Distributed Computing Lab Data Mining Lab Research Specialization Lab - I



### SEMESTER 9

<b>Theory</b>	Information Retrieval
	Software Patterns
	Mathematical Modelling
	Professional Elective - IV
	Open Elective - II
<b>Practical</b>	Information Retrieval Lab
	Modelling and Simulation Lab
	Research Specialization Lab - II

### SEMESTER 10

Project Work II

Industry/Research Project

### PROFESSIONAL ELECTIVES

- Principles of Programming Languages
- Reinforcement Learning
- Natural Language Processing
- Deep Learning
- Approximation Algorithms
- Network Algorithmics
- Social Network Analysis
- Advanced Computer Graphics
- Computer Vision & Image Analysis
- Data Compression
- Randomized Algorithms
- Cloud Computing
- Pervasive Computing
- Big Data and Modern Database Systems
- Principles of Compiler Design
- Network Science
- Security Modelling and Analysis
- Internet of Things
- Epidemic Models
- Statistical Learning

### OPEN ELECTIVES

- Computational Finance
- Computational Geometry
- Data Science
- Data Visualization
- Principles of Management and Behavioural Sciences
- Entrepreneurship
- Computational Complexity Theory
- Wireless Networks
- Advanced Operating Systems
- Mobile Computing
- Computational Foundations for Robotics
- Environmental Science and Green Computing

## SEMESTER 1

<b>Theory</b>	Calculus and its Applications Basics of Computational Biology Digital Electronics Problem Solving & C Programming English for Professional Skills Engineering Graphics and Geometric Modelling
<b>Practical</b>	C Programming Lab Digital Electronics Lab Personality & Character Development

## SEMESTER 2

<b>Theory</b>	Discrete Structures Abstract Algebra Data Structures Object Oriented Programming Theory of Probability
<b>Practical</b>	Object Computing Lab Data Structures Lab Python Programming Lab Personality & Character Development

## SEMESTER 3

<b>Theory</b>	Applied Statistics Linear Algebra Graph Theory Advanced Data Structures Computer Organization and Assembly Language Programming
<b>Practical</b>	Applied Statistics and R Programming Lab Advanced Data Structures Lab Assembly Language Programming Lab

## SEMESTER 4

<b>Theory</b>	Optimization Techniques DataBase Design Predictive Analytics Operating Systems Transforms and its Applications
<b>Practical</b>	Data Visualization Lab RDBMS Lab Java Programming Lab

## SEMESTER 5

<b>Theory</b>	Design and Analysis of Algorithms Stochastic Models Computer Networks Supervised and Unsupervised Learning Professional Elective - I
<b>Practical</b>	Design and Analysis of Algorithms Lab Computer Networks Lab Supervised and Unsupervised Learning Lab

## SEMESTER 6

<b>Theory</b>	Parallel And Distributed Computing Data Mining Big Data & Modern Database Systems Artificial Intelligence Professional Elective - II
<b>Practical</b>	Parallel and Distributed Computing Lab Big Data & Modern Database Systems Lab Scientific Computing Lab

## SEMESTER 7

Project Work I

Industry / Research Project

## SEMESTER 8

<b>Theory</b>	Reinforcement Learning Natural Language Processing Cloud Computing Professional Elective – III Open Elective - I
<b>Practical</b>	Reinforcement Learning Lab Natural Language Processing Lab Cloud Computing Lab

### SEMESTER 9

<b>Theory</b>	Data Privacy and Security Network Science Information Retrieval Professional Elective - IV Open Elective – II
<b>Practical</b>	Information Retrieval Lab Data Privacy and Security Lab Network Science Lab

### SEMESTER 10

Project Work II  
Industry / Research Project

### PROFESSIONAL ELECTIVES

- Data Compression
- Mobile Computing
- Digital Image Processing
- Multimedia Analytics
- Computational Neuro Science
- Pervasive Computing
- Marketing Analytics
- Web Analytics
- Soft Computing
- Computer Graphics
- Algorithms for Bioinformatics
- Mathematical Modeling
- Software Engineering
- Software Patterns
- Applied Graph Algorithms
- Game Theory
- Social Network Data Analytics
- Survival Analytics
- Deep Learning
- Health Analytics
- Cyber Security Analytics
- Internet of Things

### OPEN ELECTIVES

- Computational Finance
- Computational Geometry
- Randomized Algorithms
- Principles of Management and Behavioural Sciences
- Entrepreneurship
- Information Theory and Error Control Coding
- Accounting and Financial Management
- Wireless Networks
- Environmental Science and Green Computing

## Infrastructure

The College has a well equipped state-of-the-art computer centre with latest software and hardware. The Department has an Object Computing Lab, Computational Sciences Lab, Theoretical Computer Science Lab, Computer Systems and Design Lab, Information Systems Lab, Computational Neuroscience Lab, Smart and Secure Environment Lab and Data Science Lab. In addition to the Computer Centre, the college also has a well-equipped TIFAC-CORE Centre, CAD/CAM Centre, Virtual Reality Centre, Virtual Instrumentation Centre, Project IMPACT Centre, DSP Lab in Collaboration with Texas Instruments, PSG - Siemens Centre of Excellence in Automation and PSG Cognizant Open Source Lab with state-of-the-art facilities.

## Library

The College has a well stocked library with nearly 2.5 lakhs books, back volumes, more than 400 international & national journals and magazines. The library has a good collection of CD-ROMs, to which students have free access. Apart from catering to the needs of the faculty and students, the library allows access to industrial associates of PSG College of Technology. In addition to this, each Department maintains its own well-equipped library catering to the needs of its students.

An in-house academic journal, National Journal of Technology, is published by the college on a quarterly basis comprising of quality articles by researchers all over the country.

## Internship

As part of the curriculum, the students are required to undertake two projects each of duration six months, which provide them hands on training, thereby exposing them to the requirements and the pre-requisites of the Industry. The Seventh Semester (May – November) and Tenth semester (December- May) are devoted entirely to project work, which is usually taken up by the students at software industries and research institutions, thereby enabling them to have industrial and R&D exposure. This not only gives the students an opportunity to work in a challenging environment with the state-of-the-art technology, but also, supplements their work culture through which they gain a mélange of managerial and technical skills.

Companies which recruit our students are ABCO India Pvt. Ltd., Adobe systems, Amazon, J.P. Morgan, Bridgei2i, Cerner, Cisco, Citrix, Cognizant, Commvalut, D.E. Shaw, Dell, Deloitte, eBay, Freshdesk, Goldman Sachs, Google, HP, IBM, Infibeam.com, Infosys, Intel, Juniper Networks, KLA Tencor, LatentView, Microsoft, Micro Focus, Motorola, MU Sigma, Nokia, OAT Systems, Siemens, Oracle, Paypal, Philips, SAP Labs, Societe Generale, TCS, Thorogood, ThoughtWorks, Verisign, Verizon, Wipro and Yahoo and are paid attractive stipend during the period.

To address the needs and challenges of the global market and to quench the thirst of our students as creators of knowledge, the department encourages students to do research in top-notch research institutes like IISc, IITs, ISI, IIM, TIFR, IISER, DRDO, IIIT, GIST South Korea, NUS Singapore.

# Extra Curricular Activities

In addition to the academic and curricular activities, the students actively participate in co-curricular and extra curricular activities. The Computational Sciences Association, which is exclusively for the students of M.Sc. (Software Systems), M.Sc. (Theoretical Computer Science) and M.Sc. (Data Science) conducts various activities for the benefit of the students. Special lecture meetings, invited talks and seminars are held regularly, for which experts in various fields from the industry and other institutions are invited to present their views regarding the latest trends and developments in the field of Information Technology. From a very humble beginning, the Association has, under the able guidance of the faculty advisors and the staff members of the Department, grown into being one of the most active associations in the college today. On the eve of, celebration of two decades of Software Engineering and one decade of Theoretical Computer Science, a series of guest lectures by the Alumni and Academicians from top notch institutions/industries have been organised since Jan 2017.

The Association also brings out a quarterly newsletter "COMAPP COMMUNICATIONS", which publishes papers and articles from its members, alumni of the Department and students of the department. The Editorial Board of COMAPP Communications consists of students guided by a faculty member acting as the Chief Editor. COMAPP COMMUNICATIONS is released by the students themselves and each issue highlights a recent trend in the IT field, thus enabling the students to keep abreast of the ever-changing technology.

Under the auspices of the Association, the students organize a National Level Technical Symposium, titled "LOGIN" every year. LOGIN, which was first hosted in 1990, has now grown into an International level Inter-collegiate Computer Festival, and has always attracted active participation from the students of various Universities and Institutions.

THIRAN, an intra collegiate technical symposium is also organized by the students and has active participation from the various departments within the college. MINDS is an annual intra-department event conducted by the Association with the sole aim to bring out the best out of the freshers.

The Association also encourages the students to participate in similar meets conducted by other institutions. As a result of such constant support, the students have, over the years, been winning laurels outside the campus. Periodical industrial visits and active industry-institute interaction are a boon to the students in enhancing their skills.

# Campus Placements

Students from PSG Tech have been absorbed by leading software houses of India and abroad through campus recruitment. Partial list of IT organizations which visit PSG Tech for campus recruitment:





# Alumni Feedback



**Muthukumar Subramanian**  
Microsoft Corp. , Redmond , WA  
M.Sc. SE:1998 - 2003

M.Sc. Software Engineering is a very unique program which has a lot of focus on “lab” work. I found that the six month internships provided a great opportunity to learn and grow as a professional; this exposure provides a key differentiation in the job market. I would highly encourage aspiring software engineers to join the program and soak in everything that PSG Tech has to offer. All the best!



**Arun Raghavendar**  
Amazon, Chennai  
M.Sc. SE : 2002 - 2007

M.Sc. Software in PSG Tech is a preciously crafted course that transforms a passionate student to a solid engineer. The course emphasis strongly on “learning by doing” which is a rare trait in conventional engineering courses. The practical classes and the two full time internship programs not only improve the technical knowledge of the student, but also make the individual a better leader. I am proud to be an alumnus of this prestigious course.



**Napoleon Villalan**  
Accenture, UK  
M.Sc. SE : 2005 - 2010

MSC SWE programme at PSG Tech offers a rich fulfilling college experience and the same time prepares you for life after college in the most complete way. The faculty are top notch and the two internships is a massive value add and held me in good stead when I graduated.



**Sreeharsha Gunda**  
**Goldman Sachs, Bengaluru**  
**M.Sc. SE :2006 - 2011**

M.Sc. Software Engineering is the program specially designed to meet up to date requirements of industry. Two six month internships, a unique concept of this program, provides good exposure to industrial practices. This program emphasizes more on practical knowledge, which makes it different from others. It provides a great platform for innovation and learning. The department also encourages students to participate in extracurricular activities. Overall, this is a perfect program for students aiming to pursue a career in IT industry.



**L. Sabarathinam,**  
**Checkpoint Systems, Germany**  
**M.Sc. SE :2006-2011**

The five years that I attended M.Sc Software Engineering in PSG College of Technology has been an amazing life changing experience for me. The course has helped me grow professionally as well as personally. The specialty of this course can be classified in two : First, is the choice of electives. The students are given the freedom to select the subjects that they like and excel in them according to their area of interests in the IT sector. Second, is the internships that we attend during our seventh and tenth semesters. These internships provide us exposure to the corporate as well as the startup world in the IT industry. I would recommend anybody with a passion towards information technology to join this course and hone their software skills and attain great heights.



**Priyanka Ramesh**  
**Cisco System Inc, Bengaluru**  
**M.Sc. SE : 2010 - 2015**

Software Engineering has equipped me with the skills necessary to work at par or even better than the graduates of top-notch institutions in the country like IITs and BITS. The exposure I received through this course to pursue my varied interests is incomparable. A holistic development of an individual in terms of technical know-how and other soft skills is guaranteed. Definitely one of the best courses offered at PSG Tech.

# Alumni Feedback



**Preethi Murali**  
**Cisco System Inc, Bengaluru**  
**M.Sc. SE : 2010 – 2015**

The gap between academia and industry is the nightmare of every newly hired graduate. But, when a student is exposed to coursework that aligns with the rapidly changing industry demands, is equipped with experience of two 6-months' internship programmes, is encouraged to explore and experiment in multiple domains and pursue such learning amidst equals, the transition to the industry would indeed be a cakewalk. Having trod the path and progressed beyond, I proudly attribute my growth as a professional and a person entirely to the programme and soak in everything that PSG Tech has to offer. All the best!



**Priyadarshini Udayakumar**  
**Amazon, Chennai**  
**M.Sc. SE : 2010 – 2015**

M.Sc. SWE equipped me with the right tools to achieve the perfect balance of conceptual learning and industrial exposure. The learning and guidance received clearly puts you in the forefront, right from the start of your career, all thanks to the wonderful department. The course is crafted to be the rightfully challenging, with incredible support from the faculty to keep you driven.



**Preyes M**  
**Radius, Bengaluru**  
**M.Sc. SE : 2011 – 2016**

M.Sc Software Engineering helped me learn a lot both academically and non academically. It has made me a well rounded individual with good technical skills. Its alumni network and glorious past has been an impetus in making me strive to become better everyday.

**P.Ramanathan**  
**Goldman Sachs, Bengaluru**  
**M.Sc. SE : 2012 – 2017**



M.Sc software engineering has helped me shape my career in many ways and I would definitely recommend it to anyone who has interest in pursuing computer science. The fact that it has well structured course format adapted to today's industry needs and provides 2 internships one during 4th year and other towards the end with high profile companies gives huge amount of exposure. When competing during final placements Msc always has a edge over other courses due to experience gained from industry exposure and learning things practically. Overall, this is a perfect program for students aiming to pursue a career in IT industry.



**Adithya K,**  
**KLA Tencor, Chennai**  
**M.Sc. SE : 2012 – 2017**

MSc Software Engineering in PSG Tech is one of the leading courses in the country which keeps in pace with the skills needed in the industry and research areas. The ever evolving course syllabus and the skilled faculty make sure the students are well-equipped to enter the industry and excel at what they do. The internship experience would shape up the thought process of every student and make them think as Software engineers at a very early stage. The excellent mentor-ship of the faculty in college projects help the students take up real world projects and build their skill set.

**Bharathi Nithya E,**  
**VMware Software India Pvt. Ltd, Bengaluru**  
**M.Sc. SE : 2014 – 2019**



M.Sc. Software Systems is an intensive and innovative programme as it provides students with a variety of opportunities to explore their path of career. It offers two internships as a part of the curriculum, they serve as an eye-opener for the students as they enable them to find out their domain of interest and it also gives a great industry exposure. The syllabus has been built in a strong way which allows the students to put their thoughts and ideas into action. The faculty members of our department have been a pillar of support for all of us. They help students to excel and continue on their journey to better themselves not only as a student but also as a person.

# Alumni Feedback



**Swathy Jayasankar**  
Societe General global solution center, Bengaluru  
M.Sc. SE : 2014 – 2019

M.Sc Software Systems is one of the best courses in the college which ensures 100% placements. It has a curriculum that is updated periodically based on the boom in the software industry. There are two internships which are a part of the course, which gives us an exposure to the software industry and also gives us hands-on experiences. These internships help us to identify our field of interest as well. Above all, we have very supportive and dedicated faculty members to help us throughout our course.



**Raghavendar V**  
BRIDGEi2i Analytics Solutions Inc., California  
M.Sc. TCS : 2007 – 2012

The highlight of MSc TCS is that it shapes the way you think. The syllabus is also framed in such a way that it is central to Math, Science and Technology which is crucial for students eager to pursue an elite career either in the Industry or Research.



**Sethuraman T.A**  
Co Founder, Jungroo Learning  
M.Sc. TCS : 2009 – 2014

The Masters in Theoretical Computer Science is one of its kind course in the country. It not only gives you a very sound mathematical base but also incorporates computational thinking and logic in the courses. This will have a huge impact in your thinking and problem solving abilities later on in your life. The two six month internship period lets you have industry experience during the coursework. This will give you the much needed industry exposure that will put you in a better position to make decisions about your career. The department and faculty are very supportive and understanding. They support you and lets you pursue your strengths.



**Sabhareesh Ravichandran**  
**KLA Tencor, Chennai**  
**M.Sc. TCS : 2011 – 2016**

MSc Theoretical Computer Science, has a well structured syllabus that equips the pursuant with immense mathematics and computer science both theoretically and practically. It is impeccably crafted with two internships, that provides exposure of how the academia and computer science industries operate. It was a memorable experience, with a steep learning curve while collaborating with the peers and good set of faculty in the department.



**Varshini M**  
**Searchblox Software**  
**M.Sc TCS: 2011 – 2016**

It was a dream come true moment to join this programme. Having internships as part of the curriculum is a great opportunity to develop skills that we can't get in a classroom. The professors are incredibly knowledgeable and kind. Graduating from here would be academically enriching and rewarding experience.



**Anish V**  
**Microsoft, Hyderabad**  
**M.Sc. TCS : 2012 - 2017**

M.Sc. Theoretical Computer Science is an exceptional and one of a kind programme offered by PSG Tech. The variety of CS courses that the programme offers is unparalleled to any other programme in the country. TCS mainly focuses on research, encouraging students to constantly think out of the box and to come up with innovative solutions to problems. The courses are designed to provide an in-depth understanding across various CS domains and this paves a way for pursuing research as a career option. The amount of exposure and the



# Alumni Feedback



**Gowtham Maddi**  
Paypal, Chennai  
M.Sc. TCS : 2012 – 2017

It is a wonderful and grateful experience I have got from M.Sc. Theoretical Computer Science. The program curriculum is carefully craved that helped us to be in par with the industry / academic expectation. Two internships during the program helped in developing key skills that cannot be learnt in a classroom. I am really thankful to my faculties, seniors who held my hand in every good and bad circumstances during the program.



**Arthi S**  
Pursuing Masters in CSE at Santa Clara University, California  
M.Sc. TCS : 2012 – 2017

I am fortunate that I have taken M.Sc. in Theoretical Computer Science coursework. The coursework has given me immense exposure to many on-going research and career-focused areas. Despite the challenging tasks of the course, it was a fun opportunity to interact and learn from top-notch faculty members. The vast knowledge imparted by them proved beneficial in pursuing my higher education abroad.



**Karthika J.P.**  
Thorogood Associates, Bengaluru  
M.Sc. TCS : 2012 – 2017

MSc in Theoretical Computer Science helps in moulding you for industrial life as well as academia. The curriculum is a balanced mix of theoretical education and practical application that when combined with the exceptional faculty creates one of the finest courses. The two internship semesters let the students experiment with research as well as giving them a taste of industry experience which gives them an edge over their peers after graduation.



**Karpagam Balasubramaniam**  
**eBay, USA.**  
**MSc Software Engineering: 2008-2013**

I belong to the 2008-2013 batch of M.Sc Software Engineering at PSG College of Technology. Selecting this course was a life changing decision for me. I am forever grateful to my professors & peers for the diverse experiences I had and the professional connections I made through my journey. My favorite chapters in this journey were the summer research projects at PSG Tech (under encouraging and motivating professors) and the internship opportunities at eBay. It always gives me great joy and pride to call myself an alumnus of this department.



**Shruti Murali**  
**Google Inc, Mountain View, California.**  
**M.Sc Software Engineering: 2008-13**

I consider myself extremely lucky to be holding the prestigious degree of MSc. Software Engineering from PSG College of Technology, Coimbatore. I owe my current position in the industry to the course. With a well-structured curriculum abreast with current technology, technically sound and experienced faculties and good infrastructure from a reputed institution, you'll be 'IN' for an all-round development. The course nurtures your passion for coding and love for numbers to bring out the best in you. Add to it a couple of complete six months of on-the-job training, well, you'll come out as a true professional at the end of five years



**N.V. Harsha Priya**  
**Intel Technology India Pvt. Ltd., USA**  
**M.Sc Software Engineering: 1998-2003**

The success of this course lies in the fact that I did not feel alien when I first stepped on to my first job. The two 6-month projects in this course had already exposed me to the industry culture and I knew what to expect and what is expected, even before my first day of job. Letting the students select their electives is another forte of this course. This encourages the students to chose their streams of interest and focus that as their area of expertise.

# Alumni Feedback



**Pravin Shankar**  
**Data Science Manager at Facebook, USA**  
**MSc Software Engineering: 1998-2003**

The M.Sc. Software Engineering course at PSG Tech went a long way in helping me strengthen my basics in all areas of Computer Science and Software Engineering. It was unique in the sense that it simultaneously laid emphasis on the core courses like Theoretical Computer Science and Mathematics as well as a plethora of electives. Such a format helps one become strong in the fundamentals as well as develop areas of interest in topics of one's interest. Hence I feel it is the best undergraduate course if one wishes to pursue higher (doctoral) studies in the field of Computer Science.



**Rishab R Bafna**  
**Quantitative Research Analyst at JPMorgan Chase & Co, Mumbai**  
**MSc TCS 2012-17**

TCS as the name says is mathematical study of computer science. The syllabus of the course is refreshed such that includes all the hot topics required for industry. You can also work on the theoretical aspects in lots of different fields from distributed systems to machine learning. An underlying command of fundamentals will make you useful regardless of changing technologies. This is what TCS gives you. To wrap up, TCS is an amazing kick starter for your career growth.



**Andal Priyadarshini J**  
**Apple, USA**  
**MSc TCS: 2007-2012**

MSc Theoretical Computer Science provided me with a platform at a very early stage to explore a wide variety of subject matter across Computer Science. The program gave me an opportunity to perform focused research by collaborating with Professors across the world. The experiences I have had with the program has brought me a long way to what I am pursuing as my career interest today. Undoubtedly, one of the best programs in the country.



**Atul Balaji**  
**Goldman Sachs, Bengaluru**  
**M.Sc. TCS : 2014 – 2019**

MSc Theoretical Computer Science is a well-refined course designed for students that are interested in gaining a strong mathematical base along with a solid foundation of computer science. The course enables a student to pursue his/her research interests just as well as it enables a student to lead a successful career in the IT industry.



**S. Vaishali**  
**To pursue Ph.D at University of California, Santa Barbara(UCSB)**  
**M.Sc. TCS : 2014 – 2019**

M.Sc. Theoretical Computer Science is a program that opens doors for both industry and research experiences; giving you a taste of both the worlds. The curriculum along with a strong and diverse alumni base opens up a plethora of opportunities. The program continues to adapt itself and as a result, stays relevant to the current technology and market trends.

## Interns Feedback



**Aravind Pai**  
**M.Sc. Data Science : (2015 – 2020)**  
**Intern at Analytics Vidhya, Gurgaon**

According to Arnaud Perigord, “Data Scientists and Machine Learning Engineers are in great demand and at the forefront of coming AI revolution”. The excitement in Data Science is in the journey towards achieving three significant kinds of results: discovery, insights, and innovation. Data science is the field of study that combines domain expertise, programming skills, and knowledge of math and statistics to extract meaningful insights from data. Data Science is the most interesting subject one can learn. “Data scientists are highly educated - 88 percent have at least a master’s degree and 46 percent have PhDs. A very strong educational background is usually required to develop the depth of knowledge necessary to be a data scientist,” reports KDnuggets, a leading site on Big Data. M.Sc Data Science is the right platform to build your career in Data Science with one year of industrial experience.

# Interns Feedback



**Shraddha S Krishnan**  
**M.Sc. Data Science (2015-20)**  
**Societe General Global Solution Centre**

Data Science has given me a strong foundation in the domain. It is always "What's Next?" and never "This is it". The course is designed to meet industry standards. The scope of the course is just not constrained to the syllabus. The packages that we do make us challenge ourselves and explore the subjects in depth. The interaction with professionals from the industry keeps motivating us and gives a real view of the world. The 6 – month internships gives an exposure to the industry and prepares us for our professional lives.



**Kamesh C**  
**M. Sc Data Science (2015 - 2020)**  
**Intern at Société Générale**

Being the student of the first batch of M.Sc Data Science is always fascinating. Choosing this five year integrated course has been the best decision I have made in my entire career. This course has constantly enriched both my analytical and technical skills. This curriculum is well structured in a way for us to face the industry trends. With an amazing faculty team and fellowship, the learning becomes interesting and easier. The course throws in the right proportion of mathematics, computer science and statistics. Through the five year period, the amount of exposure that we could acquire through different competitions and technical hackathons is humungous. I uphold that choosing M.Sc Data Science, would be the smartest decision if you are looking forward to a Tech-oriented career.



**Kavya Parthiban**  
**MSc Data Science (2015-2020)**  
**Myntra Designs Pvt Ltd**

The Department of Applied Mathematics and Computational Sciences has a reputation of nurturing students with an in-depth understanding of the general principles in computer science and mathematics. Continual support from both the academic and industrial leads enables the students to keep abreast of emerging knowledge in the advancements of computing and analytics. This course gives students a holistic view into what Data Science really is, with the buzz around big data and artificial intelligence, students who undertake this course are sure to be one step ahead. From health to retail, and from the IT industry to government, the Data Science MSc will prepare you for a successful career as a data scientist.

## PSG Institutions

PSG Sarvajana Higher Secondary School	1924
PSG Industrial Institute	1926
PSG Polytechnic College	1939
PSG Middle School, Vedapatti	1943
PSG College of Arts and Science	1947
PSG College of Technology	1951
PSG Rural Health Centre, Vedapatti	1961
Neelambur	1985
Karadivavi	1998
PSG & Sons' Charities Metallurgy and Foundry Divisions	1974
PSG Institute of Medical Sciences & Research	1985
PSG Industrial Training Centre	1986
PSG Hospitals	1989
PSG Centre for Sponsored Research and Consultancy	1989
PSG Centre for Non-formal & Continuing Education	1989
PSG Urban Health Centre	1993
PSG Institue of Management	1994
PSG College of Nursing	1994
PSG STEP	1998
PSG College of Physiotherapy	1999
PSG College of Pharmacy	2001
PSG Centre for Advertising & Communication	2001
PSG Public Schools	2002
PSG Off shore Healthcare Management Services	2003
PSG Institute of Advanced Studies	2006
PSG Institute of Technology and Applied Research	2014
PSG Centre for Academic and Research Excellence	2015
PSG Software Technologies	2017





# PSG College Of Technology

Coimbatore

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