NEW-AGE UNDERGRADUATE & POSTGRADUATE COURSES
Every Industry Needs Career-Ready Professionals Every Day

Let's Start a Revolution!
About Poornima University

Poornima University is a proud constituent of Poornima Foundation (PF), established under the affluent intellect of Shanti Education Society since 2000. PF believes that the main objective of education is to produce a thoughtful, truthful, industrious and spiritual human beings for the society with outstanding knowledge in their field of specialization. We firmly believe that infrastructure, well equipped libraries, conducive environment shall work magically to bring out honest and technically sound technocrats & professionals. The journey began with the establishment of Poornima College of Engineering (PCE) in the year 2000. PF added next feather to its cap in year, 2007 with establishment of two more scholarly institutes named as Poornima Institute of Engineering & Technology (PIET) and Poornima School of Management (PSOM). In the year 2009, fourth institute Poornima Group of Institutions(PGI) was established.

About iNurture Education Solutions: Our Industry Partner

iNurture Education Solutions Pvt. Ltd., the pioneer in career-ready formal higher education in India, was established in the year 2005 with the goal of building a suitable career platform for students. iNurture stands for ‘Intelligent Nurturing’ which forms the foundation of its belief system and practice. iNurture innovatively combines formal higher education with career readiness under the guidance of leading industry experts. iNurture focuses on the fast growing industry verticals such as IT Infrastructure, Storage & Cloud, Information Security, Mobile Applications, Creative Industries (Advertising, Branding, Media, Entertainment and Internet), Visual Communication, Animation & Visual Effects, Financial Services and Business Analytics.

Poornima University - iNurture Partnership

Poornima University and iNurture Education Solutions have come together to offer career-ready undergraduate & postgraduate courses in several fast growing sectors. These courses are available at Poornima University.

Undergraduate Courses Offered

BFA - Specialization
- Animation & Visual Effects (VFX)

BCA – Specialization
- Mobile Applications & Information Security
- IT infrastructure management & Cloud Technology

Postgraduate Courses Offered

M.Sc. - Specialization
- Mobile Applications
- IT Infrastructure Management & Services
Course Objective

This unique course provides dual career options to the students in the fast grown sectors of Animation & Visual Effects. This course enables students to master the art of animation film-making and visual effects. This course is tailor-made to hone the craft skills of the students and help foster creative thinking and ideation. This course encourages students to explore and experiment with ideas; and communicate the idea through narrative, non narrative story telling techniques; exploration and experimentation of materials and media in animation, modeling and compositing by adopting innovative exercises. Seamless integration of meaning, form, functions as an exercise in and building coherence in content. It is a unique mix of ideas, creativity and craft skills located in the overall domain of animation and visual effects.

The BFA – Animation & VFX course from Poornima University focuses on these aspects as high competence can propel you to a highly rewarding career in this fast grown Industry.

Short films by each students and professionally fine tuned show reels are the best testimonials to the high quality learning that is imparted. This opens opportunities for exposure in the industry through Film festivals at National and International levels.

The abundant knowledge from this course will help you in changing the Indian Animation and Visual Effects industry to bring new dimensions.

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Degree Awarded</th>
<th>Duration of the Course</th>
</tr>
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<tbody>
<tr>
<td>BFA – Animation &amp; VFX</td>
<td>Bachelor of fine arts (BFA)</td>
<td>3 years (6 semesters)</td>
</tr>
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</table>

Eligibility
10+2 pass in RBSE / ICSE / CBSE or equivalent board or a course recognized as equivalent therefore by the University OR Recognized 3 year diploma preferably in Animation / Visual Arts / Fine Arts or equivalent.

Examinations & Assessments
1. Internal tests
2. Assignments
3. Seminar presentation
4. Class tests
5. Practical examination
6. End Term Theory examination
Curriculum*

Semester 1
Core Subjects (Theory)
- English
- Indian Constitution
- Animation Principles

Practical
- Foundation Art I
- Digital Art I
- Stop motion Animation
- 2D Digital Animation I
- Soft Skills-I

Semester 2
Core Subjects (Theory)
- Communication English
- Environmental Science
- Storytelling

Practical
- Foundation Art II
- Digital Art II
- Photography
- 2D Digital Animation II
- Life and Career Skills

Semester 3
Core Subjects (Theory)
- Film Appreciation and Analysis
- Story & Script writing
- Editing & Sound Design Concepts
- Departmental Elective (Theory/ Practical)
- Web Animation / 2D Game Art

Practical
- Preproduction I

Semester 4
Core Subjects (Theory)
- Character Design Concepts
- Layout Design Concepts
- Light Theory

Practical
- Pre-production II
- 3D Lab II
- 3D Dynamics II
- Lighting & Rendering
- Soft Skills-III

Project/Seminar
- Mini Project

Semester 5
Departmental Elective (Theory / Practical)
- 3D Animation & Rigging / Modeling and Texturing
- Departmental Elective Specialization II (Practical)
- Lighting, Shading and Rendering / VFX

Semester 6
Project/Seminar
- Internship -In campus / External
- Final Research Project
- Project Report
- Viva

Career Opportunities

Animation
Experts believe that the Indian animation industry is set to clock stupendous growth in coming times. Animation, which encompasses gaming, web designing, creative content, television commercials, games for internet, personal computer and consoles, has a strong and wide reach across sectors.

According to a report by auditing firm PWC on the Indian media & entertainment industry, the animation industry was estimated to have business around ₹1,100 crore in the year 2006 and it is expected to grow at a rate of 22% to reach ₹5,400 crore at the end of 2014.

This is just over 2% of the size of the world’s animation industry and hence, there is tremendous growth potential for the industry.

This Animation course prepares you for career opportunities in:
- Animation Production Studio
- Animation Gaming
- Film and other Entertainment Industry
- Advertising Agency
- Television

*Subject to changes made by University
Career Progression Path* – Animation

<table>
<thead>
<tr>
<th>Industry</th>
<th>Entry level (0-1 yrs exp.)</th>
<th>Mid Level (3-5 yrs exp.)</th>
<th>Advanced level (5 yrs plus exp.)</th>
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<tr>
<td>Average Salary</td>
<td>₹ 200,000 - 500,000</td>
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Animation

- Visualizer
- Storyboard Artist
- BG Modeler
- Character Modeler
- Texturing Artist
- Graphic Designers
- 2D/3D Animator
- Digital Lighting & Compositing Artist
- Junior Motion
- Graphic Designer
- Production Assistant
- Illustrator

Team leads
- Production Coordinator
- Lead Concept Artist
- Render Wranglers
- Senior Artist
- Modeling, Texturing, Animation / Lighting
- Senior Compositor
- UI Designers

- Production Manager
- Creative Director
- Technical Lead/Director
- Animation Supervisor
- Compositing Supervisor
- Studio Manager
- Line Producer
- Asset Supervisor
- Sequence Lead
- Sr. User Interface Design Lead

Visual Effects

- VFX and 3D film making industry is expected to grow at 18.5% per annum and it would generate large number of employment opportunities.
- Indian Media & Entertainment Industry is zooming ahead. Current Market Size is estimated at ₹61,000-crore and expected to reach ₹1,05,200-crore by the year 2014.
- Maximum growth expected in Television and Film segments. More than 300 national and regional TV channels ensure pan India reach.
- Close to 1000 films made every year in India.
- Liberal FDI policies across all the segments of the industry.
- Government focusing on regulations to give further force to the industry.
- By successfully completing BFA in VFX students can work in many areas of live action Film Production.
- The main opportunity comes from VFX Production studios across the country as well as global Animation Industry.
- Advertising Design studios provides multiple opportunities to VFX students, Television Channels and other Tele productions also provide good opportunity for placements.

Career Progression Path* – Visual Effects

<table>
<thead>
<tr>
<th>Industry</th>
<th>Entry level (0-1 yrs exp.)</th>
<th>Mid Level (3-5 yrs exp.)</th>
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<td>Average Salary</td>
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Visual Effects

- Visualizer
- VFX S/B Artist
- Matte Movie Artist
- Rotoscope Artist
- Junior Fx Artist
- Junior Compositor
- Matte Painters
- Digital Lighting & Shading Artist
- Junior Motion
- Graphic Designer
- Production Assistant

Team leads
- Production Coordinator
- Senior Compositor
- Senior FX Artist
- Sr. Digital Lighting & Shading Artist

- VFX Producer
- Pipeline Manager
- VFX Supervisor
- Post Production Supervisor
- Studio Head
- Tech Lead Digital
- Lighting & Shading
- Technical Director (TDs)
- Compositing Supervisor
- Line Producer
- FX Lead
LEARN ANIMATION AT iNURTURE TOONSKOOL
INDIA’S NO.1 AWARD WINNING ANIMATION ACADEMY

For the year 2014:

- 2nd Best Animation Film: Solitary Happiness in National Level Short Film festival 2014 (NACT)
- Best Modeling Animation Film: Give Peace a Chance in National Level Short Film festival 2014 (NACT)

For the year 2013:

- GUJARAT INTERNATIONAL FILM FESTIVAL OF INDIA – 2013 Cochin, Best National Animation Short Film
- DELHI CG ANIMATION AWARDS 2013, Best Stop motion Film [Gold], Best 3D Animation film, Best 2D Film
- 6th FILMSAAZ-2013, Film Festival of short films and documentaries: Best Animation Film in International Category
- ROLLING FRAMES SHORT FILM FESTIVAL-Bangalore: Best Animation Film in International Category
- INTERNATIONAL SHORT FILM FESTIVAL OF INDIA 2013 – Chennai: Short listed from 534
- NASIK INTERNATIONAL FILM FESTIVAL 2013 – Bangalore, Best Animation film

For the year 2012:

- SID SHORT FILM FESTIVAL 2012 -1st place
- RAY FESTIVAL AWARDS 2011-12 – 2nd place
- 7th VIBGYOR INTERNATIONAL FILM FESTIVAL – nominated as Best Animation Short Film
- INTERNATIONAL ANIMATION DAY – Jury Award & Viewers Choice Award
- NACT – ALL INDIA SHORT FILM FESTIVAL – Best Animation Film
- MUMBAI SHORT INTERNATIONAL FILM FESTIVAL – Best Students Film Animation

For the year 2011:

- RAY FILM FEST – 1st Prize, 2nd Prize
- ANIFEST INDIA – Selected TASI Viewer’s Choice Awards
- SANCHAR AWARD – Best Animation Film
- PIFF (PUNE INTERNATIONAL FILM FESTIVAL) – Best Animated Film Indian
- Won Award in DADA SAHEB PHALKE FILM FESTIVAL - 2011
- CGTANTRA COMMUNITY AWARDS – Animation Short Film-Student winner
- JAIPUR INTERNATIONAL ANIMATION FILM FESTIVAL – Special jury mention award
- TBS DIGICON6 AWARDS – Nominated & screened
- ATHENS INTERNATIONAL FILM FESTIVAL – Nominated
- ANIMAYO – Nominated
- ASIFA INDIA AWARDS 2011 – best 2D animated students film

For the year 2010:

- RAY FILM FEST – Best Animation Film
- ASIFA INDIA AWARDS – Students Asifa India Award of Excellence 2010
- 24 FPS – Best 2D Animated Short Film

"VAMA" A short animation movie from iNurture students won I prize in Delhi CG Animation Awards 2013
Awards & Accolades won by our students
Course Objective

This unique course provides dual career options to the students in the technology sectors of Mobile Applications and Information Security. In addition to all the mandatory subjects of a traditional BCA, this specialized course offers in-depth practical know-how of the current technological trends - Mobile Applications and Information Security. These sectors have the potential to grow exponentially and will provide challenging job opportunities for young professionals with the right skill sets.

On the Mobile Applications front, the course will provide students with the fundamental knowledge of all aspects of mobile technologies with emphasis on application development for Android, with industry requirements in mind.

On the Information Security front, this course equips the students with the concepts and the technical skills in Information Security. The focus of the course is on the models, tools and techniques for enforcement of Security Policies, with emphasis on Cryptography, Ethical Hacking, Computer Forensics and Virtualization and Cloud Security.

Course Name
BCA - Mobile Applications & Information Security

Degree Awarded
Bachelor of Computer Applications (BCA)

Duration of the Course
3 years (6 semesters)

Eligibility

10+2 pass in RBSE / ICSE / CBSE or equivalent board or a course recognized as equivalent therefore by the University OR Recognized 3 year diploma preferably in Programming / Computer Science or equivalent.

Examinations & Assessments

1. Internal tests
2. Assignments
3. Seminar presentation
4. Class tests
5. Practical examination
6. End Term Theory examination
### Curriculum*

#### Semester 1
**Core Subjects (Theory)**
- Language I
- English I
- Fundamentals of Mathematics
- Computer Fundamentals & Organization
- Programming in C
- Introduction to Linux

**Practical**
- C Programming Lab
- Linux Lab
- Soft Skills-I

#### Semester 2
**Core Subjects (Theory)**
- Language II
- English II
- Operating System
- OOPS with C++
- Data Structures Using C
- System Configuration and Maintenance

**Practical**
- OOPS with C++ Lab
- Data Structures Lab
- Life and Career Skills

#### Semester 3
**Core Subjects (Theory)**
- Information Security Fundamentals
- Mobile Web and Application Development

- Object Oriented Programming with Java
- Introduction to RDBMS

**Departmental Elective (Theory)**
- Designing Enterprise Networks / Routing and Switching Administration

**Practical**
- RDBMS - Lab
- Object Oriented Programming with Java – Lab
- Soft Skills-II

**Project/Seminar**
- Technical Seminar

#### Semester 4
**Core Subjects (Theory)**
- Ethical Hacking Fundamentals
- Cryptography Fundamentals
- Basic Android
- Mobile Device and Network Architecture

**Departmental Elective (Theory)**
- Mobile Value Added Services / Introduction to Cloud Technology

**Practical**
- Ethical Hacking – Lab
- Basic Android Lab
- Soft Skills-III

#### Semester 5
**Core Subjects (Theory)**
- Virtualization and Cloud Security
- Computer Forensics and Investigation
- Mobile Ecosystem and Business Models
- Advanced Android

**Departmental Elective (Theory)**
- IT Governance, Risk, & Information Security Management / Introduction to Web Technology

**Practical**
- Computer Forensics and Investigation - Lab Advanced Android - Lab

**Project/Seminar**
- Practical Training Seminar (PTS)

#### Semester 6
**Core Subjects (Theory)**
- Mobile, Wireless and VOIP Security
- Mobile Testing

**Departmental Elective (Theory)**
- Business Organization Basics / Professional Development Skills

**Practical**
- Mobile, Wireless and VOIP Security - Lab
- Mobile Testing - Lab

**Project/Seminar**
- Major Project

*Subject to changes made by University*
Course Objective

This unique master’s programme provides career options to our students in the emerging technology sector of Mobile Applications. The students will possess the competent knowledge and skills to seek jobs in this sector.

It gives comprehensive knowledge, technical expertise and hands-on experience in the mobile application sector.

It develop an understanding of all aspects of mobile technologies. Students will have an in-depth knowledge of Android and iPhone (iOS) application development.

At the end of this programme, the student will be able to understand the basic concepts of mobile networks, architecture and application development, comprehend the features of iOS, Objective C and Android. He/she will also be implementing Application Development Concepts and Techniques of Android and iOS.

Course Name
M. Sc. – Mobile Applications

Degree Awarded
Master of Science

Duration of the Course
2 years (2 semesters)

Eligibility

B.Sc. (Mobile Application) OR B.Sc. Computer Science / BCA /BE/B.Tech. OR Degree from any discipline with a Post Graduate Diploma in Computer Application OR B.Sc. Degree (Physics, Maths, Electronics, Statistics) OR Any other Equivalent or Higher Degree as per eligibility set out above.
Examinations & Assessments
1. Internal tests 2. Assignments 3. Seminar presentation

Curriculum*

Semester 1
Core Subjects (Theory)
Mobile Network Architecture
Mobile Device Architecture
Mobile Application Development
Mobile Web Applications
Practical
Mobile Applications Lab
Mini Project

Semester 2
Core Subjects (Theory)
Basic Android for Mobile: Theory
Basic iPhone Application Development: Theory
Mobile Ecosystem & Business Models
Elective – I (any one)
Mobile Value Added Services
SIP and IMS Protocols
Practical
Basic Android for Mobile: Lab
Basic iPhone Application Development: Lab

Semester 3
Core Subjects (Theory)
Advanced Android for Mobile: Theory
Advanced iPhone Application Development: Theory
Enterprise Application Development
Elective – I (any one)
Windows Mobile
Mobile Testing
Practical
Advanced iPhone Application Development: Lab
Advanced Android for Mobile: Lab

Semester 4
Core Subjects (Theory)
Industrial Project or Internship
Viva-voce
Project Report and Presentation

*Subject to changes made by University
Career Opportunities for Mobile App Developers

Global Scenario

Mobile Applications have spawned a new industry aptly called the “Mobile Apps Economy” which continues to grow at a rapid pace.

- Number of Apps in Android Market - Google Play: 7,00,000 *
- Number of Apps in Apple App Store: 6,50,000 **
- Estimated size of the current Mobile App Industry: $25 billion***
- Revenue growth of Mobile Apps Industry 2011 & 2012: 197 %****

The boom is set to create about 3 million Mobile Application Development related jobs worldwide.

*(Source: Bloomberg Business week) ** (Source: Distimo) *** (Source: Gartner Inc) **** (Source: ScanLife Trend Report 2012)

Indian Scenario

Advantage

The sector’s exponential growth bodes well for India. With huge investments provided for developing both consumer and enterprise apps, this sector in India will open up challenging opportunities – for both outsourced and indigenous app development.

Indian App market estimated to be around ₹150-200 Cr; could grow up to ₹2,000 Cr by 2016: Avendus Report

The Indian app market was estimated to be ₹150-200 Cr during 2012, as per a study released by Avendus Partners. The total monthly revenues earned by Google Play and Apple app store from Indian customers was ₹27.5 Cr in October 2012. Based on these estimates, the Indian app market could reach ₹2,000 Cr by 2016.

Employment Opportunities

- Small, Medium and Large Professional Services IT Companies
- Enterprise Application Product and Service Companies
- Mobile Application Product and Service Companies
- VAS providers
- E-Commerce, M-Commerce companies
- Internet service providers

Career Progression Path* - Mobile Applications

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<tr>
<th>Job Role</th>
<th>UI Engineer</th>
<th>UI Designer</th>
<th>UI Development Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software Engineer / Developer</td>
<td>Sr. Software Engineer / Developer</td>
<td>Technical Lead / Technical Manager / Project Manager</td>
<td></td>
</tr>
<tr>
<td>Test Engineer</td>
<td>Sr. Test Engineer</td>
<td>Test Manager</td>
<td></td>
</tr>
<tr>
<td>Mobile Application Developer</td>
<td>Mobile Application Entrepreneur</td>
<td>CEO</td>
<td></td>
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Career Opportunities for Information Security Professionals

Global Scenario

Cyber Security Needs Drives IT Job Growth

“New research has found that job openings in the field of cyber security have grown by more than 100 percent in the past years. Those openings are only expected to grow in the coming year, jumping an additional 30 percent in 2014. The demands for security workers points to the importance companies are placing on responding to the growth of recent attacks on businesses of all sizes.”

- Business News Daily
US Federal agencies to hire more cyber defenders in 2014
“The Army is building a new cyber command center at Fort Meade to eventually house 1,500, leading a worldwide cyber corps of 21,000 soldiers and civilians. By 2017, the Air Force will add more than 1,000 uniformed cyber forces to its 6,000 experts now working at the Air Force Space Command. The Navy had 800 cybersecurity staffers in 2013 and will reach nearly 1,000 by 2017, working toward a mix of 80 percent uniformed personnel and 20 percent civilian employees and contractors. The Marines currently have 300 uniformed personnel, civilians and contractors at work, and plan to increase that number to just fewer than 1,000 by 2017.”

- Capital Business

Indian Scenario
As per National Cyber Security Policy – 2013, there will be a requirement of 500,000 professionals skilled in cyber security in the next 5 years. Also the Ministry of Communication and Information Technology will encourage all organizations, private and public to designate a member of senior management, as Chief Information Security Officer (CISO), responsible for cyber security efforts and initiatives.

“Analysts said that India currently has around 22000 certified cyber security professionals, which is significantly lesser than the requirement of 77000 personnel. The current number is miniscule when compared to the nearly 25 million cyber warriors in China. According to recent data, India would need 4.7 lakh cyber security professionals by 2015 to protect its IT infrastructure”.

- The Times of India

Even in the most difficult, economical scenario, IT security is a full-employment field. With the growing number of threats on the horizon, and the growing awareness of cyber security vulnerabilities and issues inside the enterprise, it is clear that security will be a top priority for the coming year and likely for years to come.

Job opportunities for Cyber Security Professions in various departments of different sectors:

- Corporate (Information Security, Compliance, IT&IS Audit, Software Development etc.)
- Banking, Finance and Insurance Sector (IT and Data Security, E-Commerce and Net-banking Security, Compliance, Information Risk Management, IT&IS Audit etc.)
- Defence and Police (R&D, Investigation and Forensics, IT Infrastructure Security etc.)
- Governance (E-Governance, Public Key Infrastructure Management, Forensic Science Labs etc.)
- Legal Department (Cyber Forensics Consultants, Cyber Law Expert, Expert witness etc.)
- Cyber Fraud Consultants/ Management (Ethical Hacker, Penetration Testers, Cyber Fraud Detectives)

Career Progression Path* - Information Security

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<tr>
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<th>Executive Information Security</th>
<th>Sr. Information Security Offcr</th>
<th>Chief Information Security Officer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Malware Analyst</td>
<td>Sr. Malware Analyst</td>
<td>Manager Anti Virus Development</td>
</tr>
<tr>
<td></td>
<td>Datacenter Technician</td>
<td>Datacenter Engineer</td>
<td>Datacenter Manager</td>
</tr>
<tr>
<td></td>
<td>Junior Penetration Tester</td>
<td>Penetration Tester</td>
<td>Ethical Hacker</td>
</tr>
<tr>
<td></td>
<td>Database Manager – IT Security</td>
<td>Network and Database Manager</td>
<td>Datacenter Security Engineer</td>
</tr>
<tr>
<td></td>
<td>Jr. Cyber Forensic Analyst</td>
<td>Cyber Forensic Analyst</td>
<td>Cyber Forensic Investigator</td>
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Course Objective

This unique course provides dual career options to the students in the technology sectors of Infrastructure Management and Cloud Technology. In addition to all the mandatory subjects of a traditional BCA, this specialized course offers in-depth practical know-how of the current technological trends - Infrastructure Management and Cloud Technology. These sectors have the potential to grow exponentially and they provide challenging job opportunities for young professionals with the right skill sets.

On the Infrastructure Management front, this course provides opportunity for the students to learn all aspects of Infrastructure Management Services (IMS) such as Networking, Operating Systems, Virtualization, and Datacenter technologies.

On the Cloud Technology front, the course will provide students with the fundamental knowledge of all aspects of Cloud Technologies. The course focuses on Virtualization Technologies, Cloud Technologies, Datacenters, Networking and Operating Systems.

Course Name

BCA - IT IMS (Infrastructure Management Services) & Cloud Technology

Degree Awarded

Bachelor of Computer Applications (BCA)

Duration of the Course

3 years (6 semesters)

Eligibility

10+2 pass in RBSE / ICSE / CBSE or equivalent board or a course recognized as equivalent therefore by the University OR Recognized 3 year diploma preferably in Programming / Computer Science or equivalent.

Examinations & Assessments

1. Internal tests
2. Assignments
3. Seminar presentation
4. Class tests
5. Practical examination
6. End Term Theory examination
Curriculum*

Semester 1
Core Subjects (Theory)
Language I
English I
Fundamentals of Mathematics
Computer Fundamentals & Organization
Programming in C
Introduction to Linux

Practical
C Programming Lab
Linux Lab
Soft Skills-I

Semester 2
Core Subjects (Theory)
Language II
English II
Operating System
OOPS with C++
Data Structures Using C
System Configuration and Maintenance

Practical
OOPS with C++ Lab
Data Structures Lab
Life and Career Skills

Semester 3
Core Subjects (Theory)
Introduction to RDBMS
Object Oriented Programming with Java
Basics of Server Operating System
Introduction to Web Technology

Departmental Elective (Theory/ Practical)
Information Security Fundamentals /Software Engineering

Practical
RDBMS - Lab
OOPS with Java – Lab
Soft Skills-II

Project/Seminar
Technical Seminar

Semester 4
Core Subjects (Theory)
Designing Enterprise Networks
Ethical Hacking Fundamentals
Fundamentals of Datacenter
Introduction to Cloud Technology

Departmental Elective (Theory)
Server Network Infrastructure / Cryptography Fundamentals

Practical
DEN – Lab
Ethical Hacking – Lab
Soft Skills-III

Project/Seminar
Mini Project

Semester 5
Core Subjects (Theory)
Linux Administration
Principles of Virtualization
Introduction to Windows Azure
Private Cloud Architecture

Departmental Elective (Theory)
Fundamentals of IT Infrastructure Library / Virtualization & Cloud Security

Practical
Linux Administration – Lab
Windows Azure – Lab

Project/Seminar
Practical Training Seminar (PTS)

Semester 6
Core Subjects (Theory)
Amazon Web Services (AWS)
Mobile, Wireless and VOIP Security

Departmental Elective (Theory)
Business Organization Basics / Professional Development Skills

Practical
AWS - Lab
Mobile, Wireless and VOIP Security - Lab

Project/Seminar
Major Project

*Subject to changes made by University
Course Objective

This unique master’s programme provides career options to our students in the technology sector of Infrastructure Management Services. The students will possess the competent knowledge and skills to seek jobs in this sector.

It gives the opportunity for the students to learn all aspects of IMS such as Networking, Operating Systems, Virtualisation, and Data centre technologies. At the end of this programme, the students will be able to implement basic infrastructure solutions, configure and troubleshoot basic networks and operating system and demonstrate functional knowledge on datacenters and the concept of virtualization.

Course Name
M. Sc. - IT IMS
(Infrastructure Management Services)

Degree Awarded
Master of Science

Duration of the Course
2 years (4 semesters)

Eligibility
B.Sc. (IT-Infrastructure Management Services) OR B.Sc. Computer Science / BCA /BE/B.Tech. OR Degree from any discipline with a Post Graduate Diploma in Computer Application OR B.Sc. Degree OR Any other Equivalent or Higher Degree as per eligibility set out above.

Examinations & Assessments
1. Internal tests
2. Assignments
3. Seminar presentation
4. Class tests
5. Practical examination
6. End Term Theory examination
Curriculum*

Semester 1
Core Subjects (Theory)
Computer System Organization
Designing Enterprise Network-I
IT security Systems
Server Operating System-I
Practical
Server and Enterprise Network Lab
Mini Project

Semester 2
Core Subjects (Theory)
Server Operating System-II
Designing Enterprise Network – III
Server Operating System-III
Elective – I (any one)
Designing Enterprise Network – II
Application Programming
Mail servers
Introduction to Databases
Practical
Server and Enterprise Network Lab
Elective subject: Lab

Semester 3
Core Subjects (Theory)
Datacenter Architecture
Introduction to Cloud Computing
Advanced Network Security
Elective – I (any one)
Principles of Virtualization
ITIL and HPSM
Concepts of Scripting and MySQL Database
Ethical Hacking
Practical
Advanced Network Security Lab
Virtualization Lab

Semester 4
Core Subjects (Theory)
Industrial Project or Internship
Viva-voce
Project Report and Presentation

*Subject to changes made by University
**Career Opportunities for Infrastructure Management Services (IMS) / Remote Infrastructure Management Services (RIMS) Professionals**

**Global Scenario**

Infrastructure Management Services: The next big growth driver for IT services companies

“Infrastructure Management Services (IMS) has become one of the most talked about topics in the IT outsourcing space today. IMS has undergone a sea change in recent times—from ensuring uptime of the applications and infrastructure, to emerging as a technology enabler for the business. According to the latest report by technology analyst firm Ovum’s Infrastructure market trends research suggests that it will reach $770 billion by 2015 and will hit a 4.5 percent growth rate by 2013.”

- Business Line (The Hindu)

**Indian Scenario**

“India’s Remote Infrastructure Management Segment has been on an accelerated growth path, recording a ~11% growth in FY2010. By 2020, India’s RIM segment is expected to be ~US 30 billion and exploiting this opportunity will require all stakeholders – industry, academic, government and associations – to collaborate and promote India as a preferred destination for RIM services.”

- Sam Mittal, President NASSCOM

**Industry Size**

- IMS Current Industry Size: US$ 6 Billion
- Incremental IT Exports Growth in the last 4 Years: 25%
- India’s Expected Revenues from RIM Exports by 2015: US$ 12.5 Billion
- India’s Share in Global addressable market by 2020: 45%

**Job Opportunity**

- It is estimated that the RIM industry will be worth $12.5 Billion by 2015, growing from the current US$ 6 Billion.
- This estimate means that the work force will increase to about 2,50,000 from the current 1,00,000.
- This means, the RIM Industry will add ~ 40,000 jobs every year.
- In addition to this, RIM’s India Operations and other IT-IMS sectors in India will generate ~ 10,000 jobs every year.

**Career Progression Path* - IT Infrastructure Management**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Entry level (0-1 yrs exp.)</th>
<th>Mid Level (3-5 yrs exp.)</th>
<th>Advanced level (5 yrs plus exp.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Salary</td>
<td>₹ 200,000 - 500,000</td>
<td>₹ 400,000 - 800,000</td>
<td>₹ 800,000 +</td>
</tr>
<tr>
<td>Job Role</td>
<td>Network Engineer</td>
<td>Network Specialist</td>
<td>Manager - Network</td>
</tr>
<tr>
<td></td>
<td>Desktop Engineer</td>
<td>Sr. Engineer</td>
<td>Manager - Customer Support</td>
</tr>
<tr>
<td></td>
<td>System Engineer</td>
<td>Tech Lead - Systems Engineer</td>
<td>Lead - Customer team</td>
</tr>
<tr>
<td></td>
<td>Windows Admin</td>
<td>Lead - OS Admin</td>
<td>Manager - OS Admin</td>
</tr>
<tr>
<td></td>
<td>Linux Admin</td>
<td>Lead - OS Admin</td>
<td>Manager - OS Admin</td>
</tr>
</tbody>
</table>

**Career Opportunities for Cloud Technology Professionals**

**Global Scenario**

- Combined Market of Private and Public Cloud Services - $11 Billion in 2012
- Poised to grow to $ 65 to 85$ Billion in 2015

-McKinsey Analysis: Winning in the SMB Cloud: Charting a Path to Success
Growth and Forecast

- There are currently about 50 million enterprise users of Cloud Office Systems which represent only 8 percent of overall office system users, excluding China and India
- A major shift toward cloud office systems will begin by the first half of 2015 and will reach 33% penetration by 2017
  - Gartner Report
- Worldwide spending on public IT cloud services will be more than $40 billion in 2014
- Expected to approach $100 billion in 2016
- Over the 2012-2016 forecast period, public IT cloud services will enjoy a compound annual growth rate (CAGR) of 26.4%, five times that of the IT industry overall
  - IDC research

Jobs and Opportunities


Indian Scenario

Market Size

The public cloud services market in India is forecast to grow 36 percent in 2014 to total $443 million, up from $326 million in 2013, according to Gartner, Inc. Infrastructure as a service (IaaS), including cloud compute, storage and print services, continues as the fastest-growing segment of the market in India, growing 22.7 percent in 2013 to $43.1 million, and it is expected to grow 39.6 percent in 2014 to $60.2 million. Infrastructure as a service (IaaS), including cloud compute, storage and print services continued as the fastest-growing segment of the market, growing 42.4 percent in 2012 to $6.1 billion and expected to grow 47.3 percent in 2013 to $9 billion.

Jobs and Opportunities

India will create over 2 million jobs in Cloud sector, predicts a study commissioned by Microsoft and conducted by International Data Corporation (IDC).

Career Progression Path* - Cloud Technology

<table>
<thead>
<tr>
<th>Job Role</th>
<th>Entry level (0-1 yrs exp.)</th>
<th>Mid Level (3-5 yrs exp.)</th>
<th>Advanced level (5 yrs plus exp.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloud Architect</td>
<td>₹ 400,000 - 500,000</td>
<td>₹ 400,000 - 800,000</td>
<td>₹ 800,000 +</td>
</tr>
<tr>
<td>Cloud Engineer</td>
<td></td>
<td></td>
<td>Cloud Consultant</td>
</tr>
<tr>
<td>Datacenter Engineer</td>
<td></td>
<td></td>
<td>Manager Cloud Technology</td>
</tr>
<tr>
<td>Datacenter Technician</td>
<td></td>
<td></td>
<td>Datacenter Manager</td>
</tr>
<tr>
<td>Remote Desktop Engineer</td>
<td></td>
<td></td>
<td>Datacenter Manager</td>
</tr>
<tr>
<td>Cloud Security Specialist</td>
<td></td>
<td></td>
<td>Security Officer</td>
</tr>
<tr>
<td>Cloud Consultant</td>
<td></td>
<td></td>
<td>Manager Cloud Security</td>
</tr>
</tbody>
</table>
Placement Counseling

At the end of every course, we counsel our students and train them adequately to help their smooth transition into the professional realm. We partner with the corporate sector and ensure that our students get the right opportunities to embark on their dream career.

Some of Our Leading Placement Partners:

**Animation & Visual Effects**

- CHUCORES
- Indioglo
- PRANAA
- TGS ECOM
- Reliance MediaWorks
- eTOL Learning Insight
- Tata
- Tata ELXSI Limited

**Information Technology & Mobile Apps**

- ashtech
- AXON
- Hidden Brains
- Magna Infotech
- Openxcell
- PCS TECHNOLOGY
- serviceberry
- TriState Technology
- VCS
- YUDIZ
- ACCEL FRONTLINE
- Addon Solutions
- Ver.ie
- Verve Systems
- MarkTeQ
- PANAMAX
## Fee Structure

<table>
<thead>
<tr>
<th>Course</th>
<th>Annual Fee</th>
<th>Development Fee</th>
<th>Tuition Fee</th>
<th>Sem. Exam. Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCA (IT-IMS &amp; Cloud Technology)</td>
<td>₹ 80,000</td>
<td>₹ 20,000</td>
<td>₹ 60,000</td>
<td>₹ 500</td>
</tr>
<tr>
<td>BCA (Mob Apps &amp; Info. Security)</td>
<td>₹ 80,000</td>
<td>₹ 20,000</td>
<td>₹ 60,000</td>
<td>₹ 500</td>
</tr>
<tr>
<td>BFA (Animation &amp; VFX)</td>
<td>₹ 80,000</td>
<td>₹ 20,000</td>
<td>₹ 60,000</td>
<td>₹ 500</td>
</tr>
<tr>
<td>M.Sc. (IT-IMS)</td>
<td>₹ 1,00,000</td>
<td>₹ 25,000</td>
<td>₹ 75,000</td>
<td>₹ 1,100</td>
</tr>
<tr>
<td>M.Sc. (Mobile Application)</td>
<td>₹ 1,00,000</td>
<td>₹ 25,000</td>
<td>₹ 75,000</td>
<td>₹ 1,100</td>
</tr>
</tbody>
</table>

### Other Fee

- **Form Fee**  ₹ 1000/-
- **Caution Money (Refundable)**  ₹ 5000/-
- **Annual Activity Fee**  ₹ 3500/-
- **Uniform Fee**  ₹ 2500/-
- **Enrolment Fee**  ₹ 350/-

### Hostel Fee (If applicable)

- **Double Seated with Air Cooling**  ₹ 75,000/-
- **Double Seated without Air Cooling**  ₹ 68,000/-
- **One time Caution Money (Refundable)**  ₹ 7,500/-

### Scholarship

<table>
<thead>
<tr>
<th>XII/ Graduation percentage</th>
<th>Scholarship in Tuition Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>80% &amp; above</td>
<td>100%</td>
</tr>
<tr>
<td>75 ≤ 80%</td>
<td>80%</td>
</tr>
<tr>
<td>70 ≤ 75%</td>
<td>60%</td>
</tr>
<tr>
<td>65 ≤ 70%</td>
<td>40%</td>
</tr>
<tr>
<td>60 ≤ 65%</td>
<td>20%</td>
</tr>
</tbody>
</table>

### Refund Rules

All admissions are subject to fulfillment of eligibility criteria. If it is found at any stage that the candidate has submitted wrong information /certificate or concealed some information his/her admission will be cancelled without any notice and the fee will be refunded as per below norms.

**Course Fee**

- Fee will be refunded within 15 working days in case a student withdraws the admission before the commencement of classes and within 30 working days in case the student withdraws after commencement of classes.
- Development fee as prescribed in prospectus is Non refundable under any circumstances for all courses.
- If a student withdraws admission after commencement of classes but before last date of admission the fee will be refunded after deduction of Development fee.
- If a student withdraws admission after last date of admission no fee will be refunded.
- Caution money is refundable subjected to submission of annual course fee and no dues certificate.
- If a student withdraws in subsequent semester no fee will be refunded.
- The above refund rules will also be applicable to a student who is expelled on disciplinary grounds.

**Hostel Fee**

1. No deduction will made if the student withdraws/leave the hostel before the commencement of classes.
2. If a student withdraws within 15 days after commencement of classes the hostel fee will be refunded after deduction of hostel charges @ Rs. 300/- per day.
3. Hostel fee will not be refunded if a student withdraws after 15 days of commencement of classes.

**Transport Fee**

1. No deduction will made if the student withdraws/leave the transport facility before the commencement of classes.
2. If a student withdraws within 15 days after commencement of classes the transport fee will be refunded after deduction of transport charges on pro rata basis.
3. Transport fee will not be refunded if a student withdraws after 15 days of commencement of classes.
### Recruiters' Viewpoint

<table>
<thead>
<tr>
<th>Features</th>
<th>Traditional Degrees</th>
<th>Poornima - iNurture Specialized Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognized Degree</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Regular Classes by permanent Faculties</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Valid for Government Jobs</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Job Oriented</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Practical Approach</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Industry exposure</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Content</td>
<td>Obsolete</td>
<td>Updated</td>
</tr>
<tr>
<td>Syllabus according to current job requirements</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Open Gates for worldwide career</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>