

**UNIVERSITY OF KERALA**  
(Re-accredited by NAAC with 'A' Grade)

**DEPARTMENT OF COMPUTER SCIENCE**

**Kariavattom, Thiruvananthapuram – 695 581**

*Ph: 0471 2308360, website: www.dcsku.org*

(Supported by DST-FIST)

**PROSPECTUS - 2017**

**M.Tech Computer Science (with Specialization in Digital Image Computing)**

**Approved by AICTE**

**INTRODUCTION**

The Department of Computer Science, University of Kerala offers three PG programmes in Computer Science, M.Tech, M.Sc. and M.Phil in addition to doctoral research programme in Computer Science. Major Research projects in frontier areas like Image Processing, Artificial Intelligence, Fuzzy Systems, etc. are being carried out in the Department. The M.Tech is a four-semester programme with specialization in Digital Image Computing and it is an AICTE approved one. The programme runs under the Credit and Semester System.

Total number of seats approved for M.Tech by AICTE is 18.

Out of which, Sponsored	- 5
SC/ST	- 3
General	- 10 (out of which reservation will be given to OBC / BPL (forward community) / Physically Handicapped also)

**ELIGIBILITY**

A Bachelor's degree in Engineering / Technology with at least 50% marks or an equivalent grade in a point scale wherever grading system is followed in one of the following branches: Computer Science and Engineering / Information Technology / Electronics Engineering / Electrical Engineering from the University of Kerala or equivalent recognized degree of a recognized University.

**OR**

Master's degree in Computer Science / Computer Application with at least 50% marks or an equivalent grade in a point scale wherever grading system is followed from the University of Kerala or equivalent recognized degree of a recognized University.

**ADMISSION PROCEDURE**

- Admissions to non-sponsored seats will be made on the basis of valid GATE/UGC-CSIR-NET score.
  - Admissions to sponsored seats will be governed by the following AICTE guidelines. The candidates should have:
    - (i) Bachelor's Degree in Engineering / Technology (in branches mentioned above) with at least 50% marks or an equivalent grade in a point scale wherever grading system is followed from AICTE approved institutions. Preference will be given to candidates who have qualified GATE.
    - (ii) A minimum two years of full time work experience in
      - Category I** - an Educational Institution / Research institution / any Government Department / Government Autonomous Organization.
- OR**
- Category II** - a registered firm / Company / Industry in the relevant field with CMM level 5 / CMMI / ISO certification.
  - (iii) Less than 45 years of age as on 1st day of the year of admission.
  - (iv) For sponsored candidates, ranking shall be based on 80% weightage for CGPA/aggregate marks at bachelor level, 10% for work experience (1%/year) and 10% for an interview conducted by Department Council.

- (v) Along with the application, a sponsored candidate shall produce the Experience Certificate and Sponsorship Certificate from the employer stating that the candidate is being sponsored to get admission to M.Tech programme in Computer Science in the Dept. of Computer Science, University of Kerala. The employer should also indicate that the candidate will not be withdrawn mid way till the completion of the course. The date of issue of the Sponsorship Certificate shall be after the date of admission notification. In addition to the above certificates, candidates belonging to Category II shall produce a certificate from the employer stating that the firm / company / industry is a registered one with a valid registration number and is a CMMI / CMM level 5 / ISO certified one.
- When GATE/NET qualified candidates are not available, admission will be given to other candidates on merit. Such admissions will be based on an entrance test conducted by the University of Kerala. Ranking will be done on the basis of marks obtained in the qualifying examination and the entrance test in the ratio 50:50. There shall be 0.25 negative mark for each wrong answer in the entrance examination. Candidate shall secure at least 25% (20% for SC/ST category) of the average marks of the stream in the entrance examination.

### SCHOLARSHIP

Students with valid GATE score may be provided with scholarship by AICTE subject to availability of funding.

**FEE STRUCTURE** (Subject to revision by the University of Kerala)

1. Tuition fee (per Semester)	Rs. 8500/-
2. Laboratory fee (per Semester)	Rs. 1000/-
3. Library fee (per Semester)	Rs. 500/-
4. Stationary fee (per Semester)	Rs. 500/-
5. Learning material (per Semester)	Rs. 250/-
6. Caution Deposit Library (Refundable)	Rs. 500/-
7. Caution Deposit Laboratory (Refundable)	Rs. 2000/-
8. Internet charges (per year)	Rs. 500/-
9. Affiliation fee	Rs. 400/-

Other Special fees as approved by University.

In addition to the fees mentioned above, a sponsorship fee Rs. 15,000/- per annum will be levied from the Sponsored candidates.

### HOW TO APPLY

Application form can be downloaded from the University of Kerala website ([www.keralauniversity.ac.in](http://www.keralauniversity.ac.in)) or from the Department website ([www.dcsku.org](http://www.dcsku.org)). The registration fee and fee for application form for M.Tech is Rs. 500/-. The filled up application form and the duly filled hall ticket (for candidates with no valid GATE or NET score) along with the necessary documents listed below should reach "The Head of the Department, **Department of Computer Science, University of Kerala, Kariavattom, Thiruvananthapuram - 695 581**" on or before **7<sup>th</sup> July 2017**.

#### List of documents to be submitted along with the filled up Application Form.

- **Pay-in-slip of Rs. 500/- of University Cash Counter or crossed DD for Rs. 510/-** issued by any branch of **SBI or District Co-operative Banks**, drawn in favour of **The Finance Officer, University of Kerala**, payable at Thiruvananthapuram. The name of person for whom the remittance is made and the purpose of remittance should be stated on the back of the DD. DD from other banks will not be accepted.
- Attested copies of Mark Lists of qualifying examination (all semesters/all years).
- Attested copy of GATE/NET score card.
- Attested copy of Community Certificate for SC/ST reservation.
- Attested copies of Community and Income Certificate for OBC reservation.
- Attested copies of Community Certificate and BPL Certificate for BPL reservation.
- Attested copy of Disability certificate from the Medical Board of a Government Hospital for Physically Handicapped reservation.
- Experience Certificate and Sponsorship Certificate from the employer in the prescribed format for the Sponsored category.

**UNIVERSITY OF KERALA**  
**(Re-accredited by NAAC with 'A' Grade)**

**DEPARTMENT OF FUTURES STUDIES**  
**Kariavattom, Thiruvananthapuram -695581**  
**Ph: 0471-2305321**

**PROSPECTUS -2017**

**M.Tech (TECHNOLOGY MANAGEMENT)**  
**(Approved by AICTE)**

**About the Department**

Department of Futures Studies of the University of Kerala is a proactive interdisciplinary Department established by UGC in 1990-91. It has won the credit of introducing M.Tech in Technology Management for the first time in India. An interdisciplinary M.Phil in Futures Studies, UGC innovative Programme - Post Graduate Diploma in Knowledge Management and Ph.D. programmes are offered by the Department. The alumni of the Department now occupy significant top level and middle level positions in various Multi-national Companies, Central and State Government Organizations/Departments.

The Department has a strong base to carry out interdisciplinary research on technology forecasting/management, system modeling, mathematical modeling, knowledge management etc.. Also in the research arena, the Department is fast becoming an international player in the field of discrete mathematics. The Department has been partnering with University of Maribor, Slovenia and Erasmus University, Netherlands and is having exchange programs for the last seven years.

The consultancy wing of the Department has established itself as a key player in the field of socially relevant consultancy projects. Consultancy works for various international agencies like Family Health International, (United Kingdom). The World Bank, The Japanese Bank for International Co-operation, Central and State Governments and the likes are being executed in a time bound manner.

**About the Programme**

The AICTE approved M.Tech Programme in Technology Management specializes in Strategic Technology Management by covering areas like Technology Forecasting and Assessment as well as Mathematical / Computer Modeling, Expert System etc. The M.Tech is a four semester Programme under the Credit & Semester System.

Total number of seats approved for M.Tech by AICTE is 15.	Out of which,
Sponsored - 2	
SC/ST - 3	
	10 (out of which reservation will be given to OBC /
	BPL forward) / Physically Handicapped as per
General -	University rules )

**Eligibility for Admission**

B.Tech Degree or equivalent in any branch of Engineering / Technology with at least 50% marks from the University of Kerala or equivalent.

**ADMISSION PROCEDURE**

**Admissions to non-sponsored seats will be made on the basis of valid GATE score.**

Admissions to sponsored seats will be governed by the following AICTE guidelines. The candidates should have:-

- (i) Bachelor's Degree in Engineering / Technology with at least 50% marks from AICTE approved institutions. Preference will be given to candidates who have qualified GATE.
- (ii) A minimum two-years of full time work experience in a registered firm / company / industry / educational and research institution / any Government Department or Government Autonomous Organization in the relevant field.
- (iii) Less than 45 years of age as on 1<sup>st</sup> day of the year of admission.

## General

- When GATE/NET qualified candidates are not available, admission will be given to Non-GATE/NET candidates on merit. Such admissions will be based on an entrance test conducted by the University of Kerala. Ranking will be done on the basis of marks obtained in the qualifying examination and the entrance test in the ratio 50:50. There shall be 0.25 negative mark for each wrong answer in the entrance examination. Candidate shall secure at least 25% (20% for SC/ST category) of the average marks of the stream in the entrance examination
- The ranking of sponsored candidates will be done on the following basis:  
Ranking shall be based on 80% weightage for CGPA/ aggregate marks at bachelor level and 10% for work experience (1%/year) and 10% for an interview conducted by Department Council.  
  
Along with application, a sponsored candidate shall produce the Experience Certificate and Sponsorship Certificate from the employer stating that *the candidate is being sponsored to get admission to M.Tech Programme. The employer should also indicate that the candidate will not be withdrawn mid way till the completion of the course.*

## Scholarship

Students with valid GATE score will be provided with scholarship by AICTE subject to availability of funding.

## Fee Structure

- I Semester Rs. 5755 +1500/- DDF (At the time of Admission)
- II Semester Rs. 3675/-
- III Semester Rs. 3920/-
- IV Semester Rs. 3275/-

## Detailed Fee Structure:-

1. Tuition Fees	Rs 1500/- (Per Semester)
2. Stationery Fee	Rs. 500/- (Per Semester)
3. Computer Laboratory Fee	Rs. 500/- (Per Semester)
4. Library Fee	Rs.300/- (Per Semester)
5. Examination Fee	Rs.975/- (Semester I ) Rs.875/- (Semester II) Rs.550/- (Semester III) Rs.475/- (Semester IV)
6. Admission Fee	Rs. 50/-
7. Quasi University Fees	Rs. 150/- (Per Year)
8. Sports and Games Fee	Rs. 75/- (Per Year)
9. Magazine Fee	Rs. 50/- (Per Year)
10. Campus Union Fee	Rs.10/- (Per Year)
11. Audio Visual Fee	Rs. 10/- (Per Year)
12. Students Aid Fund	Rs.20/- (Per Year)
13. Dept. Union Fee	Rs. 70/- (Per Year)
14. Medical Examination Fee	Rs.10/- (at the time of Admission)
15. Women's Study Unit	Rs.10/- (Per Year)
16. University Union Fee	Rs.50/- (Per Year)
17. Students Group Personal Insurance Policy Scheme	Rs.25/- (Per Year)
18. Sports Affiliation Fee	Rs.50/- (Per Year)
19. Students Affiliation Fee	Rs.400/- (at the time of Admission)
20. Caution Deposit (Refundable)	Rs1000/-
21. Addl.Fee for Sponsored Candidates	Rs.15000/- (Per Year)

## **How to apply**

Application form can be downloaded from the University of Kerala website ([www.keralauniversity.ac.in](http://www.keralauniversity.ac.in)). The registration fee and fee for application form for M.Tech is Rs. 500/-.

The application form and hall ticket (for non-gate & sponsored candidates) duly filled along with the necessary documents listed below should reach **“The Professor & Head, Department of Futures Studies , University of Kerala, Kariavattom, Thiruvananthapuram – 695 581”** on or before **7<sup>th</sup> July 2017**.

### **List of documents to be submitted along with the filled up Application Form.**

- **Pay-in-slip of Rs. 500/- of University Cash Counter or crossed DD for Rs. 510/-** issued by any branch of **SBI or District Co-operative Banks**, drawn in favour of **The Finance Officer, University of Kerala**, payable at Thiruvananthapuram. The name of person for whom the remittance is made and the purpose of remittance should be stated on the back of the DD. DD from other banks will not be accepted.
- Attested copies of Mark Lists of qualifying examination (all semesters / all years).
- Attested copy of GATE/NET score card.
- Attested copy of Community Certificate for SC/ST reservation.
- Attested copies of Community and Income Certificate for OBC reservation.
- Attested copies of Community Certificate and BPL Certificate for BPL reservation.
- Attested copy of Disability certificate from the Medical Board of a Government Hospital for Physically Handicapped reservation.
- Experience Certificate and Sponsorship Certificate from the employer for the Sponsored category.

**Last date of receipt of application is 07-07-2017.**

# UNIVERSITY OF KERALA

## DEPARTMENT OF OPTOELECTRONICS

KARIAVATTOM - 695 581, THIRUVANANTHAPURAM - Ph. 0471 2308167

### Prospectus for M.Tech Programme-2017

#### ABOUT THE DEPARTMENT:

The Department of Optoelectronics, University of Kerala, was established in 1995 and offers M. Tech. and M. Phil, courses. Also this department has very strong Doctoral Research programmes in the areas of Laser Technology, Fiber Optics and Fiber Optic Sensors, Photonic nanomaterials, Laser spectroscopy, Holography and Speckle Interferometry and Laser remote sensing. This department has well equipped M.Tech. / Research laboratories and a very good reference library.

#### M.Tech course offered:

Electronics and Communication (Optoelectronics and Optical Communication) - Approved by AICTE.

#### DURATION OF COURSE:

Two years (Four semesters under credit and semester system).

#### NUMBERS OF SEATS:

Total numbers of seats : 18, sponsored category : 5 , SC/ST category : 3 and General : 10 {among the general seats, reservations will be given to OBC/ Physically Handicapped / BPL (forward community) also}.

#### ELIGIBILITY FOR ADMISSION:

B.E / B.Tech degree with 50% marks or an equivalent grade in a point scale wherever grading system is followed in Electronics / Electrical and Electronics / Electronics and Communication Engineering/Applied Electronics and Instrumentation of the University of Kerala or equivalent.

OR

M.Sc. Degree with 50% marks or an equivalent grade in a point scale wherever grading system is followed in Physics / Applied Physics / Electronic Science or Electronics of the University of Kerala or equivalent.

Minimum marks in the qualifying examination for the SC / ST candidates are 45% or an equivalent grade in a point scale wherever grading system is followed.

#### ADMISSION PROCEDURE

- **Admissions to non-sponsored seats will be made on the basis of valid GATE OR UGC-CSIR-NET score .** When GATE/NET qualified candidates are not available, admission will be given to other candidates on merit. Such admissions will be based on an entrance test conducted by the University of Kerala. Ranking will be done on the basis of marks obtained in the qualifying examination and the entrance test in the ratio 50:50. There shall be 0.25 negative mark for each wrong answer in the entrance examination. Candidate shall secure at least 25% (20% for SC/ST category) of the average marks of the stream in the entrance examination.

- **Admissions to sponsored seats will be governed by the AICTE guidelines. The ranking of sponsored candidates will be done on the following basis:**

Ranking shall be based on 80% weightage for CGPA/ aggregate marks at bachelor level and 10% for work experience (1%/year) and 10% for an interview conducted by Department Council.

Candidates for sponsored seats must have a minimum experience of two years in relevant field and must be sponsored by the industry / training / research organizations. Maximum age for the sponsored candidate is fixed as 45 years as on the 1<sup>st</sup> day of the year of admission. A sponsored candidate has to remit a sponsorship fee of Rs. 15,000/- per year. Out of the 5 seats reserved under sponsored quota, 2 seats are reserved for candidates sponsored by Ministry of Defence, Government of India. Along with the application, sponsored candidates should produce experience certificate and a letter from the employer stating that the candidate is being sponsored to get admission to M. Tech. Programme. The employer should also certify that the candidate will not be withdrawn mid way till the completion of the course.

- The open seats available (after applying OBC / PH/ BPL reservation) will be equally allotted to candidates belongs to M. Sc. and B.Tech stream. If sufficient numbers of candidates are not available from one category, those seats will be allotted to the candidates from the general list.

#### **Fee Structure for M.Tech course: Electronics and Communication (Optoelectronics and Optical Communication)**

1. Tuition fee	: Rs. 8500/- (per semester)
2. Laboratory fee	: Rs. 1000/- (per semester)
3. Laboratory and Material fee	: Rs. 2500/- (per year)
4. Library fee	: Rs. 500/- (per semester)
5. Stationery fee	: Rs. 1000/- (per semester)
6. Internet charges	: Rs. 500/- (one time fee)
7. Learning materials	: Rs. 250/- (one time fee)
8. Caution deposit: Library	: Rs. 2000/- (refundable)
9. Caution deposit: Laboratory	: Rs. 3000/- (refundable)
10. Affiliation fee	: Rs. 400/- (one time fee)
11. Admission fee	: Rs. 200/- (one time fee)
12. Sponsorship fee	: Rs. 30,000/- (Can be paid in 2 equal installments of Rs. 15, 000/- per year)
13. Other Special fees	: Rs 420/- (per year)

**Note:** If a candidate joined for M. Tech. Course discontinues after the date of closing of admission to respective year is liable to remit the entire fee for one year.

#### **HOW TO APPLY**

Application form can be downloaded from the University of Kerala website ([www.keralauniversity.ac.in](http://www.keralauniversity.ac.in)). The registration fee and fee for application form for M.Tech is Rs. 500/-. The filled up application form and the duly filled hall ticket should reach “**The Head of the Department, Department of Optoelectronics, University of Kerala, Kariavattom.P.O, Thiruvananthapuram – 695 581**” on or before 7<sup>th</sup> July 2017.

#### **List of documents to be submitted along with the filled up Application Form.**

- **Pay-in-slip of Rs. 500/- of University Cash Counter or crossed DD for Rs. 510/- issued by any branch of SBI or District Co-operative Banks, drawn in favour of The Finance Officer, University of Kerala, payable at**

Thiruvananthapuram. The name of person for whom the remittance is made and the purpose of remittance should be stated on the back of the DD. DD from other banks will not be accepted.

- Attested copies of SSLC or equivalent.
- Attested copies of Mark Lists of qualifying examination (all semesters/all years).
- Attested copy of GATE/NET score card.
- Attested copy of Community Certificate for SC/ST reservation.
- Attested copies of Community and Income Certificates for OBC reservation.
- Attested copies of Community Certificate and BPL Certificate from a competent authority for BPL reservation.
- Attested copy of Disability Certificate from the Medical Board of a Government Hospital for Physically Handicapped reservation.
- Experience Certificate and Sponsorship Certificate and letter from the employer stating that the candidate being sponsored to get admission will not be withdrawn mid way till the completion of the course.
- Attested copy of Eligibility Certificates (for degrees other than that of University of Kerala)

**Last date of receipt of application is 07-07-2017**