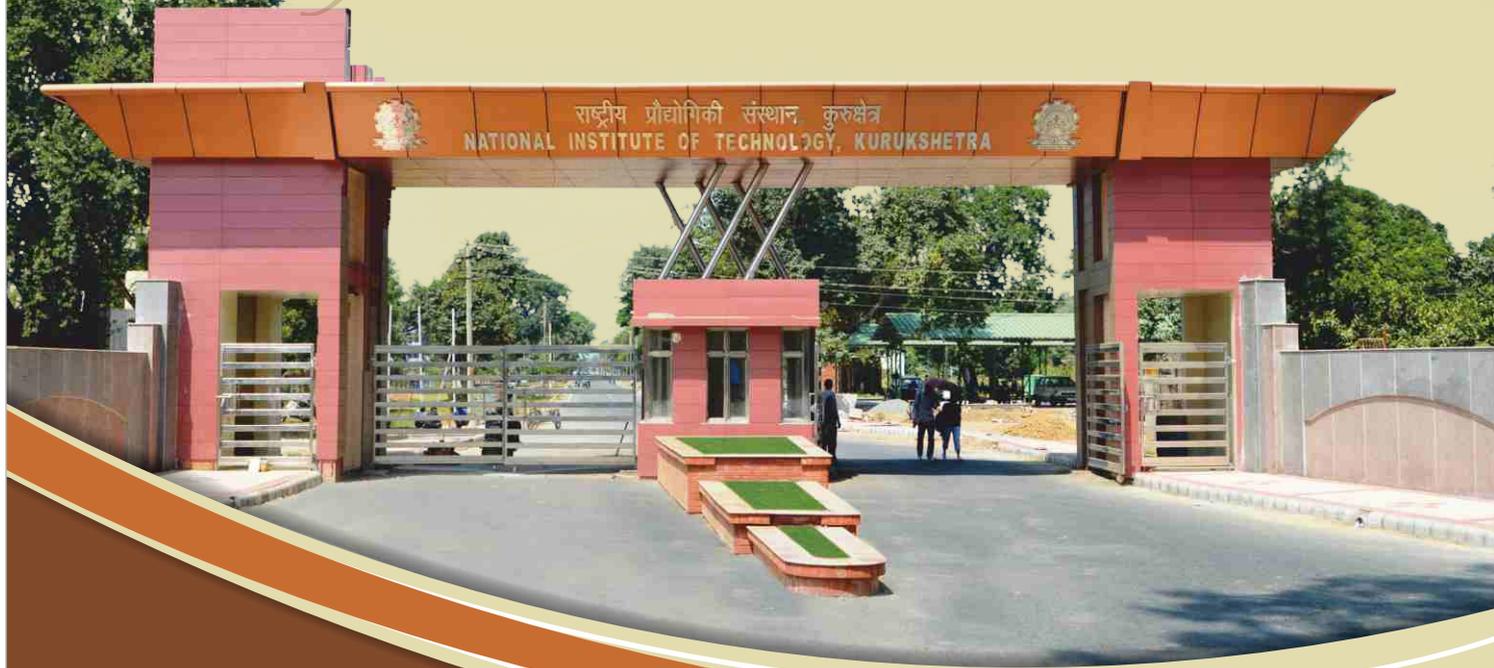


Academic Section

Information Brochure



NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA
Institution of National Importance

Vision

To be a role-model in technical education and research, responsive to global challenges



Mission

To impart quality technical education that develops innovative professionals and entrepreneurs and to undertake research that generates cutting-edge technologies and futuristic knowledge, focusing on the socio-economic needs

Academic Structure

Teaching Departments/Schools

A. Engineering:

- i. Civil Engineering
- ii. Computer Engineering
- iii. Information Technology
- iv. Electronics & Communication Engineering
- v. Electrical Engineering,
- vi. Mechanical Engineering
- vii. Production & Industrial Engineering
- viii. School of VLSI Design and Embedded Systems
- ix. School of Renewable Energy and Efficiency
- x. School of Biomedical Engineering
- xi. School of Material Science & Nanotechnology

B. Sciences, Humanities & Social Sciences

- i. Chemistry
- ii. Physics
- iii. Mathematics
- iv. Humanities & Social Sciences

C. Business Administration

D. Computer Applications

Academic Programme

The Academic Programs span over a wide range of areas in Engineering, Applied Sciences, Humanities, Management, and Computer Applications. Presently, the Institute conducts 07 B.Tech., 20 M.Tech. (two more to be started in 2015-16), one MBA (Regular and Self- Financed) one MCA (Regular and Self- Financed) and Ph. D. programmes in all the above disciplines.

Under Graduate Programmes

| Sr. No. | B.Tech. | Intake |
|---------|-----------------------------------------|------------|
| 1 | Civil Engineering | 140 |
| 2 | Computer Engineering | 92 |
| 3 | Information Technology | 92 |
| 4 | Electronics & Communication Engineering | 138 |
| 5 | Electrical Engineering | 140 |
| 6 | Production & Industrial Engineering | 92 |
| 7 | Mechanical Engineering | 138 |
| 8 | DASA (all programmes) | 125 |
| | Total | 957 |

Post Graduate Programmes

| Deptt./School | M.Tech. | Regular | TEQIP | Sponsored | Total |
|-----------------------------------------------|--------------------------------------------------------|------------|-----------|------------|------------|
| Civil Engineering | 1. Soil Mechanics & Foundation Engg. | 16 | 2 | 5 | 23 |
| | 2. Structural Engineering | 16 | 3 | 5 | 24 |
| | 3. Water Resources Engineering | 16 | 1 | 5 | 22 |
| | 4. Transportation Engineering | 16 | 2 | 5 | 23 |
| | 5. Environmental Engineering | 20 | 1 | 5 | 26 |
| Computer Engg. | 1. Computer Engineering | 20 | 5 | 5 | 30 |
| | 2. Cyber Security* | 20 | 0 | 5 | 25 |
| Electrical Engineering | 1. Power System | 16 | 4 | 5 | 25 |
| | 2. Control System | 16 | 4 | 5 | 25 |
| | 3. Power Electronics & Drives | 16 | 4 | 5 | 25 |
| Electronics & Comm. Engg. | 1. Electronics & Comm. Engg. | 20 | 4 | 5 | 29 |
| Mechanical Engg. | 1. Industrial & Production Engg. | 16 | 4 | 5 | 25 |
| | 2. Machine Design | 16 | 4 | 5 | 25 |
| | 3. Thermal Engineering | 20 | 4 | 5 | 29 |
| Chemistry | 1. Molecular Engineering & Advanced Chemical Analysis* | 20 | 0 | 5 | 25 |
| Physics | 1. Instrumentation | 20 | 0 | 5 | 25 |
| | 2. Nanotechnology | 20 | 0 | 5 | 25 |
| School of VLSI Design & Embedded System | 1. VLSI Design | 20 | 12 | 5 | 37 |
| | 2. Embedded System Design | 20 | 0 | 5 | 25 |
| School of Renewable Energy & Efficiency | 1. Renewable Energy Systems | 20 | 0 | 5 | 25 |
| School of Biomedical Engg. | 1. Biomedical Engineering | 20 | 0 | 5 | 25 |
| School of Material Science and Nanotechnology | 1. Material Science and Nanotechnology | 20 | 0 | 5 | 25 |
| | Total (22 Programmes) | 404 | 54 | 110 | 568 |

Master of Business Administration - Two-year Programme

90 Seats (60+30**)

Master of Computer Applications - Three-year programme

90 Seats (60+30**)

Ph. D. Programmes - All Departments (Full Time as well as Part Time)

*To be started from 2015-16

**Self-financed seats

Students Strength (during last three years)

| Year | B.Tech. | M.Tech. | MBA | MCA | Ph.D | Total |
|------|---------|---------|-----|-----|------|-------|
| 2012 | 2911 | 536 | 120 | 258 | 220 | 4045 |
| 2013 | 3158 | 729 | 125 | 250 | 289 | 4551 |
| 2014 | 3191 | 740 | 99 | 247 | 386 | 4663 |

Admission Process

B.Tech. (Bachelor of Technology)

In the Undergraduate courses - B.Tech. Degree Courses, admissions are made on the basis of JEE (Main) conducted by Central Board of Secondary Education (CBSE) on behalf of the Govt. of India. The Central Seat Allocation Board (CSAB) on behalf of all the NITs, other Centrally Funded Technical Institutions(CFTIs) and other Self Financed Technical Institutions(SFTIs)(Including teaching schools/departments of Pvt. Universities) conducted centralized admissions for B.Tech programmes till 2014-15.

From 2015-16 onwards CSAB is replaced by the Joint Seat Allocation(JoSAA) by the MHRD for centralized counseling for all UG and UG+PG programmes offered by the IITs,NITs and other CFTIs.

Master of Technology (M.Tech.)

Admission to M. Tech. degree courses are made on the basis of candidate's score in the GATE examination. Seats are first filled by admitting GATE qualified candidates and then by industry sponsored candidates. Remaining vacant seats are offered to Non-GATE candidates with a minimum of 60 percent marks (55 percent for SC candidates) in their qualifying examination. While GATE candidates are eligible for a scholarship of Rs. 12,400/- per month, Non-GATE candidates are not given any scholarship.

MBA (Master of Business Administration)

Admission for the course of MBA is done through stringent screening process using CAT scores followed by group discussion and personal interview conducted at the Institute.

MCA (Master of Computer Applications)

The admission to MCA programs are made mainly through (NIMCET) which is a centralized body of all the NITs.

Academic Bodies

- | | |
|---------------------------------------------|-------------------------------------------------|
| (i) Senate | (ii) Standing Committee on Senate Affairs, SCSA |
| (iii) DAC (Departmental Advisory Committee) | (iv) BOS (Board of Studies) |
| (v) DRC (Doctoral Research Committee) | (vi) Doctoral Committee |
| (vii) Student Advisory Committee | |

Evaluation System

CONTINUOUS EVALUATION SUB-COMPONENTS AND WEIGHTAGE

| | SUB-COMPONENT | WEIGHTAGE % |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| (a) | Theory Papers | |
| 1. | Three Class Tests (Two best to be reckoned) | 10+10=20 |
| 2. | Teacher's Assessment through viva-voce, Home Assignments, on the Spot tests, Short Quizzes etc | 10 |
| 3. | Class Attendance (L+T)* | 20 |
| 4. | End Semester Examination | 50 |
| (b) | For Practicals | |
| 1. | Mid Semester Evaluation (to be conducted in regular Practical Classes) | 20 |
| 2. | Teacher's Assessment through viva-voce, short quizzes, reports, Class work etc. | 20 |
| 3. | Class Attendance* | 20 |
| 4. | End Semester Examination | 40 |
| (c) | For Seminars, Projects, Training, Comprehensive viva and General Fitness evaluation, the weightage will be decided by Departmental Review/Academic Committees. | |

*The maximum attendance for calculation of attendance component of sessional marks shall be 90% of the total classes held.

EVALUATION PROCESS

With effect from the batch of students admitted in the year 2003, the Institute has switched over to a Credit Based System of evaluation for all degree programmes.

Based on the performance of a student in a course evaluated through class-work, two mid semester examinations and an end semester examination, a letter grade for that course for the semester is awarded to a student.

Further, since each letter grade awarded to the student indicates the level of performance in that course, it has an assigned Grade Point for the purpose of computing the Cumulative Grade Point Average (CGPA) as given below.

| Letter Grade | Performance | Grade Point |
|--------------|---------------------|-------------|
| A+ | Excellent | 10 |
| A | Very Good | 09 |
| B | Good | 08 |
| C | Average | 06 |
| D | Pass | 04 |
| E | Required to Improve | 02 |
| F | Repeat | 00 |

Cumulative Grade Point Average (CGPA) is the weighted average of all the grades and computed as follow:

$$CGPA = \frac{\sum C_i G_i}{\sum C_i}$$

C_i denotes credits assigned to i^{th} course and G_i indicates the Grade point equivalent to the Letter Grade obtained by the student to the i^{th} course.

A student who earns an E Grade in a course shall have to re-appear in that course in the subsequent examination (s) and a student who earns an 'F' Grade in a course shall have to repeat that Course.

The Percentage of marks of a student can be calculated by multiplying the CGPA of a student by 9.00.

Credits Assigned to B.Tech Programmes

| Branch | Semester | | | | | | | | Total |
|-------------------|----------|------|------|------|------|------|------|------|--------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Civil | 26.5 | 26.0 | 27.0 | 26.0 | 30.0 | 26.5 | 36.0 | 37.0 | 235.0 |
| Electrical | 26.5 | 26.0 | 27.5 | 28.0 | 30.0 | 27.5 | 33.5 | 43.0 | 242.0 |
| Mechanical | 26.5 | 26.0 | 26.0 | 27.5 | 29.0 | 26.0 | 30.5 | 34.5 | 226.0 |
| Computer | 26.5 | 26.0 | 27.0 | 26.0 | 29.5 | 27.0 | 32.5 | 42.5 | 237.0 |
| IT | 26.5 | 26.0 | 26.5 | 27.0 | 28.5 | 26.5 | 29.5 | 33.5 | 224.0 |
| IEM | 26.5 | 26.0 | 26.0 | 27.0 | 29.0 | 28.0 | 30.0 | 33.0 | 225.5 |
| ECE | 26.5 | 26.0 | 27.5 | 27.0 | 30.0 | 27.0 | 30.5 | 35.0 | 229.5 |

Scholarships, Awards & Medals

SCHOLARSHIPS

| Scholarships Year | Number awarded | | | | | Value (Rs.) |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|-------|-------|------------------------------------------------------------------|
| | 1st | 2nd | 3rd | Final | | |
| Batches | 2013 | 2012 | 2011 | 2010 | Total | |
| Merit Scholarship | 84 | 84 | 56 | 21 | 245 | Rs 3000/- per annum and a merit certificate |
| Postmatric Scholarship | 88 | 69 | 56 | 21 | 234 | Rs. 740/- p.m. for Hostellers & Rs. 330/- p.m. for Day Scholars |
| Others Agencies | | | | | | |
| States of India | 98 | 93 | 68 | 54 | 313 | Students with full exemption from tuition fee. |
| Railways P&T, ONGC etc. | 47 | 38 | 21 | 06 | 112 | As sanctioned by the various departments and concerned agencies. |
| Academic Prizes | | | | | | |
| B.Tech | 44 | 44 | 147 | 44 | 279 | upto ₹ 250/- in form of Academic Books |
| Central Scholarship | 68 | 51 | 34 | 17 | 170 | ₹ 1,23,140/- per student |
| PG Scholars Scholarship | All GATE qualified eligible and admitted students of M.Tech. Courses are eligible to get ₹12,400 per month stipend as per Government of India guidelines. | | | | | |
| Doctoral Scholarship Programme | 35 Scholarships of amount ₹ 25000 for JRF and ₹ 28000 for SRF for valid GATE/NET qualified students | | | | | |

AWARDS & MEDALS

| Sr. No. | Name of Medals | Remarks |
|---------|--------------------------------|-------------------------------------------------|
| 1. | B.Tech. Toppers | One in Each Branch of Engineering |
| 2. | B.Tech. Major Project Toppers | One in Each Branch of Engineering |
| 3. | Best All Round Students | Two (One girl and one boy) of B.Tech. Programme |
| 4. | Sh. Shyam Sunder Dhingra Medal | Overall Topper of B.Tech. |
| 5. | Dr. R.P. Singh Medal | Toppers of B.Tech. (Mechanical) 3rd & 2nd Year |
| 6. | Manohar Award of Excellence | Topper of B.Tech. 1st Year |
| 7. | M.Tech. Toppers | One in each Specialization of M.Tech. Programme |
| 8. | MBA Topper | Overall Topper of MBA |
| 9. | MCA Topper | Overall Topper of MCA |

B.Tech. : Undergraduate Programme

| Sr. No. | Programme | 2008-2012 | | 2009-2013 | | 2010-2014 | |
|---------|-------------------------------------|------------------|---------------------------------------|------------------|---------------------------------------|------------------|---------------------------------------|
| | | Student Admitted | Students eligible for award of Degree | Student Admitted | Students eligible for award of Degree | Student Admitted | Students eligible for award of Degree |
| 1 | Computer Engineering | 76 | 61 | 85 | 72 | 95 | 79 |
| 2 | Information Technology | 66 | 64 | 61 | 51 | 88 | 67 |
| 3 | Electronics & Comm. Engineering | 110 | 108 | 139 | 104 | 136 | 93 |
| 4 | Mechanical Engineering | 109 | 94 | 130 | 92 | 145 | 96 |
| 5 | Industrial Engineering & Management | 54 | 45 | 30 | 22 | 67 | 54 |
| 6 | Electrical Engineering | 102 | 92 | 122 | 102 | 125 | 89 |
| 7 | Civil Engineering | 104 | 100 | 125 | 95 | 134 | 105 |
| | Total | 621 | 564 | 692 | 538 | 790 | 583 |

M.Tech. Post Graduate Programme

| Sr. No. | Programme/Specialization | 2010-2012 | | 2011-2013 | | 2012-2014 | |
|---------|---------------------------------------|------------------|---------------------------------------|------------------|---------------------------------------|------------------|---------------------------------------|
| | | Student Admitted | Students eligible for award of Degree | Student Admitted | Students eligible for award of Degree | Student Admitted | Students eligible for award of Degree |
| 1 | Civil Engg. (Transportation) | 13 | 8 | 12 | 8 | 19 | 18 |
| 2 | Civil Engg. (Soil Mech. & Foundation) | 5 | 4 | 13 | 10 | 16 | 16 |
| 3 | Civil Engg. (Environmental) | 6 | 4 | 10 | 7 | 15 | 13 |
| 4 | Civil Engg. (Structural) | 10 | 6 | 13 | 9 | 17 | 12 |
| 5 | Civil Engg. (Water Resources) | 3 | 2 | 7 | 6 | 17 | 14 |
| 6 | Computer Engg. | 25 | 20 | 30 | 26 | 22 | 20 |
| 7 | Electronics & Communication Engg. | 24 | 18 | 26 | 19 | 26 | 16 |

| | | | | | | | |
|--------------|-----------------------------------------------------------------------|------------|------------|------------|------------|------------|------------|
| 8 | Physics (Instrumentation) | 20 | 14 | 20 | 14 | 20 | 15 |
| 9 | Physics (Nanotechnology) | 18 | 15 | 18 | 17 | 13 | 13 |
| 10 | Electrical Engg. (Control System) | 18 | 16 | 18 | 16 | 22 | 19 |
| 11 | Electrical Engg. (Power System) | 13 | 8 | 17 | 15 | 25 | 21 |
| 12 | Electrical Engg. (Power Electronics & Drives) | 16 | 15 | 23 | 17 | 24 | 16 |
| 13 | Mechanical Engg. (Industrial & Production) | 16 | 8 | 21 | 20 | 22 | 19 |
| 14 | Mechanical Engg. (Machine Design) | 19 | 15 | 23 | 20 | 25 | 24 |
| 15 | Mechanical Engg. (Thermal) | 15 | 12 | 22 | 20 | 25 | 20 |
| 16 | School of VLSI Design & Embedded Systems (VLSI Design) | 18 | 12 | 24 | 18 | 26 | 15 |
| 17 | School of VLSI Design & Embedded Systems (Embedded System Design) | 0 | 0 | 0 | 0 | 21 | 16 |
| 18 | School of Renewal Energy and Efficiency (Renewable Energy Systems) | 0 | 0 | 0 | 0 | 14 | 12 |
| Total | | 239 | 177 | 297 | 242 | 369 | 299 |

Other Post Graduate Programmes

| Sr. No. | Programme/Specialization | Student Admitted | Students eligible for award of Degree | Student Admitted | Students eligible for award of Degree | Student Admitted | Students eligible for award of Degree |
|---------|------------------------------------------------------------------------|------------------|---------------------------------------|------------------|---------------------------------------|------------------|---------------------------------------|
| | | 2010-2012 | | 2011-2013 | | 2012-2014 | |
| 1 | Master of Business Administration (Two years, 4 Semester Full Time) | 82 | 75 | 37 | 35 | 67 | 67 |
| | | 2009-2012 | | 2010-2013 | | 2011-2014 | |
| 2 | Master of Computer Application (Three years, 6 Semester Full Time) | 80 | 80 | 92 | 86 | 85 | 84 |

NATIONAL INSTITUTE OF TECHNOLOGY



10th
CONVOCATION

12th
CONVOCATION



Academic Office

| | |
|---------------------------------|-----------------------------|
| Prof. Baldev Setia | Dean (Academic) |
| Prof. L.M Saini | Prof-in-charge (Academic) |
| Sh. Pankaj Kumar Bayati | Deputy Registrar (Academic) |
| Sh. Gopal Krishan Sharma | Superintendent SG-II |
| Smt. Shashi Bala | Sr. Superintendent |
| Smt. Madhu Bala | Stenographer SG-II |
| Mr. Manoj | Computer Operator |
| Mr. Rajesh Jaswal | Computer Operator |
| Mrs. Rachna | Computer Operator |
| Ms. Rakhi | Computer Operator |

NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA

Phone : 01744-233223

Email : academic@nitkkr.ac.in

Website : www.nitkkr.ac.in