KIIT COLLEGE OF ENGINEERING
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
WELCOMES TEAM OF NAAC
Contents

- Department Vision and Mission
- Program Objectives
- Department Profile
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  - Lab Details & Infrastructural facility
  - Research, Collaborations & Consultancy
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- Department Achievements
  - Faculty Profile & Achievement
- Course Outcomes & Assessment
  - Result
  - Future Plan
- SWOT Analysis
The VISION of Electronics and Communication Engineering Department is to Educate & train the students to have in-depth knowledge of the subjects in the field of Electronics and Communication Engineering thereby making them develop confidence for R & D activities and placement in multinational and national companies so that the students will be of immediate use to industry, nation and mankind.
Progressively achieve higher levels of quality standards by adopting latest learning / teaching processes which are embedded in the support system and to maintain an environment which fosters holistic development and strengthens the morality & ethics of the learners.

“Excel in education and research in Electronics & Communication Engineering”
Program Objectives

- To continuously improve results, and employments through campus.

- Include professionalism through society activities like IEEE and IETE and impart knowledge in the area of Electronics and Communication Engineering.

- To augment industry-institute collaboration for activities such as In-plant training, industrial visits and sponsored research.

- To provide placement opportunities for all the eligible graduating students of the Department.

- To enhance research and consultancy activities in the Department.

- To improve the quality and quantity of papers published in Internationals journals and Conferences.
ECE Department

Year of Inception : 2006

Affiliated to Maharishi Dayanand University, Rohtak

Approved by AICTE & UGC

Faculty Strength : 27

Technical & Support Staff: 07

Total Labs: 20
<table>
<thead>
<tr>
<th>S. No</th>
<th>Course</th>
<th>Specialization</th>
<th>Intake</th>
<th>Year of Inception</th>
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<tbody>
<tr>
<td>1</td>
<td>B.Tech</td>
<td>Electronics &amp; Communication Engineering</td>
<td>60</td>
<td>2006</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>120</td>
<td>2010</td>
</tr>
<tr>
<td>2</td>
<td>M.Tech</td>
<td>Electronics &amp; Communication Engineering</td>
<td>18</td>
<td>2010</td>
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<td></td>
<td></td>
<td></td>
<td>24</td>
<td>2011</td>
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</table>
LABS-ECE Department

1. Basics of Electronics
2. Electrical Technology
3. Electronics W/S & PCB
4. Electronics W/S & Machine Lab
5. Communication System
6. Numerical Methods
7. Analog Electronics
8. Digital electronics
9. Microprocessor & Interfacing
10. Network Theory
11. EMI
12. Control System
13. Microwave & Radar
14. Satellite & Wireless communications
15. Optical communication
16. Data Communication
17. VHDL/VLSI
18. Microcontroller & Embedded systems
19. DSP
20. Design & Development Lab
Department is running Design & Development lab. In this Centre Students of 3\textsuperscript{rd} & 4\textsuperscript{th} year designed and developed Electronics Trainer boards for various labs of the department.

Kits designed by the students:

1. OPAMP Trainer board
2. Amplifier trainer board
3. Rectifier Trainer Board
4. Digital Electronics Trainer board
5. Diode Characteristic Trainer
Infrastructural Facilities

- Lecture Halls
- Tutorial Rooms
- Conference Room
- Auditorium
- Library
- Computer Labs
- Faculty Rooms
- HOD Room
- LCD Projectors
# Initiatives in Research

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name</th>
<th>Research Area</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Prof.(Dr.) S.S. Agrawal</td>
<td>Speech Processing</td>
<td>Faculty &amp; students are working on sponsored projects from DRDO &amp; DeitY</td>
</tr>
<tr>
<td>2</td>
<td>Prof. N.K. Agrawal</td>
<td>Satellite &amp; Wireless comm.</td>
<td>Projects assigned to M.Tech students</td>
</tr>
<tr>
<td>3</td>
<td>Ms. Kanika Kaur</td>
<td>VLSI Low Power Design</td>
<td>Collaborative Project with CDAC Noida &amp; students published research papers in journals in the assigned project</td>
</tr>
<tr>
<td>4</td>
<td>Ms. Shikha Khurana</td>
<td>Hardware description Language</td>
<td>Projects assigned to M.Tech students</td>
</tr>
</tbody>
</table>
Faculty Details

Professors: 03
Associate Professors: 07
Assistant Professors: 17
Ph.D: 01, Pursuing Ph.D: 03
M.Tech: 23
## List of Faculty Members

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name</th>
<th>Designation</th>
<th>Qualification</th>
<th>Area of Interest</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prof. (Dr.) S.S. Agrawal</td>
<td>Professor</td>
<td>Ph.D.</td>
<td>Speech Processing</td>
<td>Regular</td>
</tr>
<tr>
<td>2</td>
<td>Prof. N.K. Agarwal</td>
<td>Professor</td>
<td>M.Sc. (Phy), M.Sc. Tech. Elect.</td>
<td>Microwave &amp; satellite</td>
<td>Regular</td>
</tr>
<tr>
<td>3</td>
<td>Ms. Kanika Kaur</td>
<td>Professor</td>
<td>Ph.D. Pursuing</td>
<td>VLSI</td>
<td>Regular</td>
</tr>
<tr>
<td>4</td>
<td>Mr. Devendra Rajpoot</td>
<td>Associate Professor</td>
<td>M.Tech</td>
<td>Signal &amp; System</td>
<td>Regular</td>
</tr>
<tr>
<td>5</td>
<td>Ms. Shalini Goyal</td>
<td>Associate Professor</td>
<td>M.Tech</td>
<td>Speech</td>
<td>Visiting</td>
</tr>
<tr>
<td>6</td>
<td>Ms. Preeti Arora</td>
<td>Associate Professor</td>
<td>M.Tech</td>
<td>VLSI</td>
<td>Visiting</td>
</tr>
<tr>
<td>7</td>
<td>Mr. Om Parkash Singh</td>
<td>Associate Professor</td>
<td>M.Tech</td>
<td>VLSI</td>
<td>Visiting</td>
</tr>
<tr>
<td>S.No.</td>
<td>Name</td>
<td>Designation</td>
<td>Qualification</td>
<td>Area of Interest</td>
<td>Status</td>
</tr>
<tr>
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<tr>
<td>8</td>
<td>Mr. Yogesh Chauhan</td>
<td>Associate Professor</td>
<td>Ph.D Pursuing</td>
<td>Instrumentation</td>
<td>Visiting</td>
</tr>
<tr>
<td>9</td>
<td>Ms Harjot Kaur</td>
<td>Associate Professor</td>
<td>M.Tech</td>
<td>Embedded</td>
<td>Regular</td>
</tr>
<tr>
<td>10</td>
<td>Ms. Goldy Aggarwal</td>
<td>Associate Professor</td>
<td>M.Tech</td>
<td>Communication</td>
<td>Visiting</td>
</tr>
<tr>
<td>11</td>
<td>Mr. Anurag Arora</td>
<td>Assistant Professor</td>
<td>M.Tech</td>
<td>Digital Electronics</td>
<td>Regular</td>
</tr>
<tr>
<td>12</td>
<td>Mr. Namnish Kumar</td>
<td>Assistant Professor</td>
<td>M.Tech</td>
<td>Communication</td>
<td>Regular</td>
</tr>
<tr>
<td>13</td>
<td>Ms. Parul Sharma</td>
<td>Assistant Professor</td>
<td>M.Tech.</td>
<td>Microprocessor</td>
<td>Visiting</td>
</tr>
<tr>
<td>14</td>
<td>Mr. Ankit Singh</td>
<td>Assistant Professor</td>
<td>M.Tech</td>
<td>Radar</td>
<td>Visiting</td>
</tr>
<tr>
<td>15</td>
<td>Mr. Om Parkash Goswami</td>
<td>Assistant Professor</td>
<td>M.Tech</td>
<td>Control System</td>
<td>Regular</td>
</tr>
<tr>
<td>16</td>
<td>Mr. Himanshu Tayal</td>
<td>Assistant Professor</td>
<td>M.Tech</td>
<td>Electronics</td>
<td>Regular</td>
</tr>
<tr>
<td>17</td>
<td>Ms. Shikha Khurana</td>
<td>Assistant Professor</td>
<td>Ph.D Persuing</td>
<td>VLSI</td>
<td>Regular</td>
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</table>
# Technical Staff

<table>
<thead>
<tr>
<th>S.No</th>
<th>Name</th>
<th>Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mr. Amit</td>
<td>B.Tech</td>
</tr>
<tr>
<td>2</td>
<td>Mr. Shatrughan</td>
<td>B.Tech</td>
</tr>
<tr>
<td>3</td>
<td>Mr. Harshit Gola</td>
<td>B.Tech</td>
</tr>
<tr>
<td>4</td>
<td>Ms. Anima</td>
<td>B.Tech</td>
</tr>
<tr>
<td>5</td>
<td>Mr. Ankur Hooda</td>
<td>B.Tech</td>
</tr>
<tr>
<td>6</td>
<td>Mr. Sandeep Gulia</td>
<td>B.Tech</td>
</tr>
<tr>
<td>7</td>
<td>Mr. Jagmehender</td>
<td>Diploma(ECE)</td>
</tr>
</tbody>
</table>
Prof. N.K. Agarwal, HOD, ECE, received “Dr. Rajendra Prasad” award from International Forum of Eminent Educationist.

Mr. Yogesh Chauhan received best faculty award in August 2012.

Mr. Devender Rajput & Ms. Sonia Sharma, faculty of Deptt. qualified NET Exam 2013

Faculty has published research papers in IEEE explore, Springer, Transtellar and other refereed Journals.

Faculty has presented & published research papers & invited talks in National & International Conferences.
Student Achievements

- Ms. Dipty Pandey, student of M.Tech ECE Ist Sem has successfully completed research project in Speech Processing at Copenhagen University, Denmark.

- Mr. Ravi Suhag, (2008-12) got **11 Lac Package + ESOPs offer from an US-India Based Startup** named (Info Assembly) in 2013.

- Mr. Pulkit Verma & Ms. Moumita (2009-2013) published research papers in IJSER & INDIACOM -2013, BVP, Delhi in the field of latest computational technologies.

- Mr. Vikas (2010-2014) & Mr. Pulkit Verma received best student award in March 2013.

- Mr Manish Jha (2012-2014) won 2nd prize in one-act play during youth festival, organized by MDU Rohtak in October 2013.

- M.Tech students Mr. Anurag Arora & Mr. Himanshu Tayal, stood in top ten rank holders of M.D. University, Rohtak.
Successfully running remote center of IIT Bombay & IIT Kharagpur to promote various research activities & conduct various workshops on latest technologies. These programs are sponsored by MHRD, Govt. of India & conducted through NMEICT (National Mission of Education through Information & Communication Technology).

Following Workshops were organized under this program:

- **Research Methodology**, Feb 2013
- **Android Application for Aakash Tablets**, March 2013
- **Data Base Management System**, May 2013
- **Analog Electronics**, June 2013
- **Signal & System**, January 2014
EDUSAT Lab established in 2009, program beamed from IETE to facilitate the online lectures from various eminent faculty of reputed institutes.
<table>
<thead>
<tr>
<th>S No.</th>
<th>Name of the Expert</th>
<th>Topic delivered</th>
<th>Industry</th>
<th>Dates</th>
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<tbody>
<tr>
<td>1.</td>
<td>Dr. S.S. Agrawal</td>
<td>Speech Processing</td>
<td>CDAC, Noida</td>
<td>27 March 2013</td>
</tr>
<tr>
<td>2.</td>
<td>Prof. N.K. Agarwal</td>
<td>RF Facilities</td>
<td>ISRO, Trivandrum</td>
<td>Nov. 2013</td>
</tr>
<tr>
<td>3.</td>
<td>Prof. Kanika Kaur</td>
<td>Low Power Design</td>
<td>CDAC, Noida</td>
<td>June 2013 till date</td>
</tr>
</tbody>
</table>
Additional Initiatives for Student Development

**Improvement in Communication Skills**

- Add-on English Laboratory in curriculum to enhance communication skills of students.
- Add-on soft skill training and soft skills laboratory to enhance soft skill of students.
- Add-on personality development classes.

**Industry Institute Interaction:**

- Initiation of departmental consultancy activity.
- Guest lectures with industry experts.
- Professional Chapters
Professional Society Chapters

- IETE Professional Activity Center, open in 2008.
- IEEE chapter, open in 2013.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of the Event</th>
<th>Date(s)</th>
<th>In Association with</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>International conference “OCOCSDA/CASLRE 2013”</td>
<td>25/11/2013 to 27/11/2013</td>
<td>IEEE Delhi Section, DRDO, CSIR, DIETY, ICMR, &amp; DST</td>
</tr>
<tr>
<td>2</td>
<td>Two day Seminar on “VLSI &amp; Embedded System”</td>
<td>24/01/2010 to 25/01/2010</td>
<td>IETE &amp; CSI</td>
</tr>
<tr>
<td>S. No.</td>
<td>Name of the Expert</td>
<td>Institution</td>
<td>Topic</td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------</td>
<td>--------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>1.</td>
<td>Dr. R.K.Biswas</td>
<td>ST Microelectronics</td>
<td>MOS Designing</td>
</tr>
<tr>
<td>2.</td>
<td>Dr. Arti Noor</td>
<td>CDAC, Noida,</td>
<td>Low Power System</td>
</tr>
<tr>
<td>5.</td>
<td>Mr. V.K. Saini</td>
<td>Sofcon Technologies</td>
<td>PLC &amp; SCADA</td>
</tr>
<tr>
<td>6.</td>
<td>Mr. Rajeev Jain</td>
<td>Campus 2 Corporate</td>
<td>Technical writing journey</td>
</tr>
<tr>
<td>7.</td>
<td>Prof (D.r J.S Saini)</td>
<td>DCRUST, Murthal</td>
<td>Research Guidelines and all of learning</td>
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</tbody>
</table>
INDUSTRIAL VISITS

1. Delhi Earth Station in March 2012.
2. LS Cables, Gurgaon in October 2012
3. ZTE, Manesar Gurgaon, February 2013
4. TELMAR, Manesar September, 2013
Placement Organizations

- Cosmic circuits, Gurgaon
- Genpact, Gurgaon
- TCS, Gurgaon
- Wipro, Gurgaon
- NSYS, Delhi
- Circuitronix, Noida
- HCL, Gurgaon
- Tevatron Technologies
Training Organizations

- MTNL, New Delhi
- DRDO, New Delhi
- BSNL, New Delhi
- Delhi Metro
- BEL, Ghaziabad
- NTPC, Badarpur
- Airport Authority of India, Delhi
- HCL, Gurgaon
- Mitsibushi Electric, Noida
- Schiendier Electric
- Airtel, Delhi
- Vodafone Gurgaon
- Honda, Manesar
- Maruti, Gurgaon
- Moserbear, Noida
- Tevatron Technologies, Noida
- Alcatel Lucent, Gurgaon
- Robospients, Gurgaon
Salient Students Projects

- Smart Car Parking System
- IPv6 Networking
- OCB283 Home Security
- Smart Metering PLC SCADA
- App Designing for Akash Tablet
- UID Code for Stolen Car IPv6 LST
- Smart Car Parking System
- System Non-Linear Time series analysis for Neuro-cognitive Assessment & enhancement using MATLAB
- System Health Hazards due to Mobile Towers
Course Content Delivery & Course Outcomes Evaluation
Course Content Delivery

- Course allotment
- Course file
- Class room teaching
- Tutorials
- Assignments
- Seminars
- Content beyond the syllabus
- Laboratory conduction
- Remedial Classes
- Feedback Mechanism
Course Outcome Assessment

- Assignment performance
- Tutorials performance
- Continuous evaluation in labs
- Mid-term exam performance
- End-term exam performance
Evaluation, As Per MDU

Allocation of marks for theory course (B.Tech & M.Tech)

- Sessional 1: 30 Marks, 1.50 Hr Exam
- Sessional 2: 100 Marks, 3 Hr Exam
- Final University Examination: 100 Marks, 3 Hr Exam

Allocation of marks for Laboratory course (B.Tech & M.Tech)

- Internal Practical Exam: 25 or 50 Marks
- University Practical Exam: 25 or 50 Marks
Evaluation (contd.) As Per MDU

**Practical Training (I & II) in IV & VI Sem B.Tech:**
Evaluated in Grades through Report submission, VIVA & Presentation

**Industrial Training/ Institutional Project (B.Tech VIII Sem)**
- Internal Presentation, Report & Viva: 150 Marks
- University Exam: 150 Marks

**SEMINAR (M.Tech):** 50 Marks

**Minor Project (M.Tech)**
- Internal Presentation, Report & Viva: 150 Marks
- University Exam: 150 Marks

**Dissertation & Thesis (M.Tech)**
- Internal Presentation, Report & Viva: 200 Marks
- University Exam: 600 Marks
## M.Tech Result

<table>
<thead>
<tr>
<th>Year</th>
<th>&gt;60%</th>
<th>&gt;70%</th>
<th>&gt;80%</th>
<th>Overall Result</th>
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<tbody>
<tr>
<td>2013</td>
<td>03</td>
<td>12</td>
<td>03</td>
<td>100%</td>
</tr>
</tbody>
</table>

![Bar Chart for 2013 Results]

- **>60%**: 03
- **>70%**: 12
- **>80%**: 03

Overall Result: 100%
## B.Tech Result

<table>
<thead>
<tr>
<th>Year</th>
<th>&gt;60%</th>
<th>&gt;70%</th>
<th>&gt;80%</th>
<th>Overall Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>28</td>
<td>14</td>
<td>05</td>
<td>78.3%</td>
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<tr>
<td>2012</td>
<td>26</td>
<td>17</td>
<td>05</td>
<td>80%</td>
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<tr>
<td>2013</td>
<td>24</td>
<td>19</td>
<td>07</td>
<td>83.3%</td>
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</tbody>
</table>
Conclusion

Department Organizes skill development & knowledge enhancement programmes for the staff & students and also promote research and consultancy activities in the department.
THANK YOU