

# DILIP KUMAR KOLA

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Indian Institute of Technology, Kanpur  
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**Date of Birth:** 29<sup>th</sup> August, 1988  
**Sex:** Male  
**Nationality:** Indian

## OBJECTIVE

To obtain a challenging Summer Internship wherein I can get a work experience that utilizes my engineering and interpersonal skills as well as provides me the opportunity to enhance them for future career prospects.

## AREAS OF INTEREST

- Networks and Security
- Cryptography and Algorithms
- Operating Systems
- Graph Theory

## EDUCATION

- **3<sup>rd</sup> Year, Bachelor of Technology, Computer Science and Engineering.**  
Indian Institute of Technology, Kanpur.

**CPI (Cumulative Performance Index): 7.7/10.0 or 3.08/4.00**

**SPI (Semester Performance Index): 8.4/10.0 or 3.36/4.00**

### ***Courses Undertaken:***

Fundamentals of Computing, Data Structures and Algorithms, Discrete Mathematics, Computer Organisation, Operating Systems, Theory of Computation, Programming Tool and Techniques, Computer Networks, Compiler Design\*, Advanced Algorithms \*, Computer Architecture\*, Modern Cryptography\*

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\* Ongoing Courses

- ***Schooling Information***

- **Class XII**                      92% ( Mathematics, Physics, Chemistry ) in 2005
- **Class X**                        96% ( Mathematics, Physics, Chemistry ) in 2003

## TECHNICAL SKILLS

- **Programming Languages:** C/C++, JAVA, VHDL, Assembly Language(for UNIX Platform) on IA32 Architecture.
- **Platforms:** UNIX/Linux, MS-DOS, MS WINDOWS 98/2000/NT/XP/VISTA.
- **Tools and Technologies:** Latex/Tex, Lex, Yacc, Awk, HTML, PHP, Flash, MS FrontPage.

## RESEARCH PROJECTS

- **Term paper on “Architectures for efficient face Authentication”** (currently working)  
As part of Computer Architecture course, I am writing a term paper on this topic, based on a paper originally published by Najwa Aaraj, Srivaths Ravi, Anand Raghunathan and Niraj K. Jha in 2006.
- **Solver for Very Large System of Equations:**  
During Summer 2007, I, in a group of two, successfully developed a solver for a large system of equations of order 1000x1000 where each of the coefficients being of the order of 500 digits in a finite field using LU decomposition.  
**Guide:** Prof. Phalguni Gupta, Department of Computer Science, IIT Kanpur.
- **Developing a Custom Cryptographic Service Provider (CSP)**  
During Summer 2007, I was in a group of two trying to add new algorithms for developing a Custom Cryptographic Service Provider for MS WINDOWS XP and VISTA in order to enhance their security.  
**Guide:** Prof. Manindra Agrawal, Department of Computer Science, IIT Kanpur.
- **Designed a Two Player Game Othello Using Unix Socket Programming**  
Worked in group of four as a part of Computer Networks Course, we have used Socket programming and implemented Client and Server model and used broadcasting to exchange the IP addresses for establishing TCP connection to transfer data packets between two players for communication.  
**Guide:** Prof. Dheeraj Sanghi, Department of Computer Science, IIT Kanpur.
- **Extension of Nachos**  
Worked in group of three as a part of Operating Systems Course, we have implemented some features like System Calls, Scheduling Algorithms, Multiprogramming and Virtual Memory.  
**Guide:** Prof. Rajat Moona, Department of Computer Science, IIT Kanpur.

## SCHOLASTIC ACHIEVEMENTS

- Secured All India Rank **71**(Percentile: **99.95**) in the **IIT JEE**<sup>1</sup> 2005.
- Secured All India Rank **119**(Percentile: **99.93**) in the **AIEEE**<sup>2</sup> 2005.
- Secured State Level Rank **11**(Percentile: **99.98**) in **Polytechnic Entrance Exam**, 2003.
- Secured State Level Rank **101**(Percentile: **99.40**) in **APRJC**<sup>3</sup>, 2003.

## EXTRA-CURRICULAR ACTIVITIES

- Coordinator of Control Room in Annual Cultural Festival of IIT Kanpur 2007.
- Coordinator of Control Room in Annual Sports Festival of IIT Kanpur 2007.
- Volunteer of Convocation at IIT Kanpur, 2007.
- Assistant Coordinator of Control Room in Annual Technical Festival of IIT Kanpur, 2007.
- Secretary of Control Room in Antaragni, 2006.
- Winner of a Robotics Competition in Intra IIT Technical Festival, 2005.

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1 Indian Institute of Technology Joint Entrance Exam  
2 All India Engineering Entrance Exam  
3 Andhra Pradesh Residential Junior College