RADHIT DEDANIA

THIRD YEAR UNDERGRADUATE – DEPARTMENT OF ELECTRICAL ENGINEERING

CELL : (+91)-9409683982 | **E-MAIL** : radhit@iitk.ac.in | radhitd9@gmail.com

ACADEMIC QUALIFICATIONS

YEAR	INSTITUTE / SCHOOL	DEGREE / BOARD	CGPA / %
2015-Present	INDIAN INSTITUTE OF TECHNOLOGY, KANPUR	B. Tech in Electrical Engineering	**9.22/10**
2014	D.A.V. PUBLIC SCHOOL, KOTA	Central Board of Secondary Education(CBSE)	**93.20%**
2012	S.N. KANSAGRA SCHOOL, RAJKOT	Council of Indian School Certificate Examination(ICSE)	**92.57%**

SCHOLASTIC ACHIEVEMENTS

- Secured an **All India Rank** of **990** among **1.5 lakh candidates** who appeared for **JEE Advanced 2015**, conducted by **IITs**
- Procured an **All India Rank** of **1239** in **NSTSE**(National Level Science Talent Search Examination) in the year **2009**, organized by **Unified Council**
- Attained an **All India Rank** of **1214** in **UCO**(Unified Cyber Olympiad) in the year **2010**, conducted by **Unified Council**

HONORS AND AWARDS

- Felicitated with **Academic Excellence Award**(awarded to **Top 10%** of a batch of 850 students) at **IIT Kanpur** for the year **2015-2016**
- Placed on **Honor Roll** of **SN Kansagra School** for **excellent academic performance** in the year **2011-2012**
- Recognised as **Outstanding User of Mindspark**(an Intelligent Tutoring System(**ITS**) built by **Educational Initiatives**), for the year **2010-2011**
- Awarded **Certificate of Distinction** in **IMO**(International Mathematics Olympiad)-**2010**, conducted by **SOF**(Science Olympiad Foundation)
- Awarded **Certificate of Distinguished Performance** in **ASSET Exam-2010**, conducted by **Educational Initiatives**
- Awarded **Certificate of High Distinction** in **Australian Chemistry Quiz-2010**
- Awarded with various school level awards for **Academic Excellence** in several academic years

RESEARCH PROJECT

Robust Feature Extraction Using Deep Stacked Autoencoder (SURGE-2017) **Prof. Nishchal Kumar Verma (IITK)** ***May 2017-Present***

- Aimed at **extracting distinct, uncorrelated and well informative features** from an input Lung Cancer Dataset and deriving the right choice of parameter initialization values in this problem of **non-convex optimization**
- Obtained **pen-stroke like features** when implemented on MNIST database of hand-written digits, using suitable **data preprocessing** and training with multiple **fine-tunings** of a stacked autoencoder consisting of three different cascaded autoencoder
- Verified the superior quality of feature extraction of stacked autoencoder over an autoencoder(three layered deep neural network)

SUMMER INTERNSHIP

Negative Capacitance FET Model 1.0.0 implementation in MATLAB (RTE-2017) **Prof. Shaloo Rakheja (NYU, USA)** ***June 2017-July 2017***

- Gained an **in-depth knowledge** of **nanoscale MOSFETS** and the **device physics** involved with it on nanoHUB-U
- Understood the compact model on **NCFETs** involving **LK equations** and variation of different device parameters
- Extensively studied **Verilog-A** and translated the model implementation available in it to MATLAB
- Simulated the created **MATLAB** code for the model and compared the results with available experimental data

KEY ACADEMIC PROJECTS

SOLARION – The Portable Solar Cooker **Prof. Rajiv Shekhar** ***July 2016-November 2016***

- Led the team of 4 members as CEO (Chief Executive Officer)
- Constructed working model of a uniquely designed Solar Cooker using welding, brazing, sheet metal forming and casting

INK IMPRINTING MACHINE –The Semi-Automated Stamping Machine **Prof. Sounak Choudhury** ***January 2017- April 2017***

- Constructed working model of automatically feeded machine which performs speed multiplication
- Used various machining processes like Lathe, Milling, Drilling and Fitting etc. to build the machine

TECHNICAL SKILLS

Programming Languages : C, C++, Java, Python, Verilog-A
Platforms / Tools : Linux, Windows, Matlab, Gnu Octave, Microcap, Latex, Autocad, Solidworks

RELEVANT COURSEWORK

- **Electrical and Electronics :** Microelectronics-I; Control System Analysis; Signals, Systems & Networks; Introduction to Electrical Engineering; Principles of Communication; Power Systems; Digital Electronics; Digital Signal Processing*; Microelectronics-II*; Electromagnetic Theory*
- **Computer Science :** Fundamentals of Computing; Data Structures & Algorithms; Algorithms-II; Introduction to Machine Learning Techniques; Computer Organization*; Computing Laboratory-I*
- **Physics :** Introduction to Mechanics; Introduction to Electrodynamics
- **Mathematics :** Real Variable Calculus; Linear Algebra & Ordinary Differential Equations; Complex Variables; Partial Differential Equations; Probability and Statistics; Abstract Algebra (* - ongoing courses)

EXTRA-CURRICULAR ACHIEVEMENTS

- Awarded certificates, for standing among Top -3, in various Quizzes, Essay Writing, Elocution & Drawing Competitions conducted at school level
- Volunteered to provide service to the needy Cancer / Aids patients, by being a part of " MASS AWARENESS CAMPAIGN AGAINST CANCER/AIDS " launched by Caring Soul's Foundation (CASOF)
- Served as a Cadet of The National Cadet Corps (NCC), 2-UP-CTR Division, during the term of 2015-2016 at IIT Kanpur
- Excelled in Drawing Competition conducted by Rajkot Art Vision in the year 2005