Km Amita

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EDUCATIONAL QUALIFICATIONS

Degree/Examination	Institution (Board)	Year	CGPA/%
M.Tech., Materials Science and Engineering	Indian Institute of Technology, Kanpur	2020-22	7.7/10
B. Tech, Electrical Engineering	Kamla Nehru Institute of Technology Sultanpur	2011-15	8.14 **Hons**
Senior Secondary	Saraswati Gyan Mandir Inter College, Kanpur	2010	83.2**Hons**
Higher Secondary	BMIC Kannauj, Kanpur	2008	61.5

WORK EXPERIENCE

- APS Hydro Pvt .Ltd. [August'15-sep'17]
  - Cost Estimate Analysis of High Tension line and low Tension line.

INTERNSHIP AND TRAININGS

1)- TRAINING IN PANKI THERMAL POWER STATION KANPUR (may 2014-july2014)

- Coal handeling plant.
- Water treatment plant.
- Boiler Maintenance Division.
- Switch yard.

2)- NATIONAL POWER TRAINING INSTITUTE,NANGAL,PUNJAB. (Dec 2013-jan2014)

- Working on hydro –power plat.
- Control room
- Protection of transformers and protecting Equipments.
- Understanding of different type of Relays,circuit breaker,Lightings arrestors
- Protection of sub-station.

3)- In-House-Practical Training:Electrical Techonology (june 2015)

- Maintenance,Construction and Working of Common Electrical Eqipments Fan ,Ac,Refrigerator

PROJECTS

- **M. Tech Thesis**, Supervisor: **Prof. Sarang Ingole,** IIT Kanpur [July'20 – Ongoing]
  - **Topic**: **CZTS Compound Semiconductor based on thin film solar cell**
  - **Objective**: CZTS is considered as the ideal absorption layer material in next generation thin film solar cell due to the abundant component elements in the crust being nontoxic and environmentally friendly.
  - In this project based on different experiments, I summarized the development situation of Cu_2ZnSnS_4 thin film solar cells and the manufacturing technologies, as well as problems in the manufacturing process.(**Using SOLAR CELL CAPACITANCE SOFTWARE SCAPS-1D)**

Course Projects during Master's:

- **Object Segmentation using Capsule Networks *[Deep Learning online]** (July'20)
  - **Objective**: I introduced improvement to existing capsule networks which helps to get better result of semantic segmentation because Capsules replace scalars with vectors to encode appearance feature representation, allowing better preservation of spatial relationships between whole objects and its parts and avoiding the problem with CNNs is that don't preserve spatial dependencies of different parts of the image

- **Sentiments Analysis Using tree Structured LSTM. *[Deep Learning online]** (June'21)
  - **Objective**: I explored Tree-LSTM, a generalization of the standard LSTM architecture to tree-based structures.

- Network topologies for Sentiment Analysis of Movie Reviews into five classes-very negative, negative, neutral, positive, and very positive.

➢ **Stock Price Prediction Using Multiple LSTM Models and Attention Network**. ***[Deep Learning online]** (April' 20)
- **Objective:** I propose a model which predicts the stock price of a particular company using price series of other companies and attention network. In this project, I implemented attention network in two ways (i) simple FNN, and (ii) LSTM and show that LSTM-based attention gives improvement over FNN based attention network in terms of generalization.

➢ **Image Super Resolution Using Generative Adversarial Networks (GANs) *[Deep Learning online]**
(March'21)
- **Objective:** I used the original super-resolution generative adversarial network (SRGAN) as a base model for Image superresolu tion on Celeb-A Dataset.

➢ **Image To Image Synthesis Based on Conditional GANs *[Deep Learning online]**
(july'20)
- **Objectiv**e: I chose to build a model to generate an image that is a visually better and representation of an input image by Conditioning.

➢ Gave a Presentation in Course MSE691 on the **Topic**: Removal of lead from Perovskite solar cell to reduce Toxicity
➢ Gave a Presentation in Course MSE659 on the **Topic**: Tandem Solar Cell

B.Tech Project

➢ **Supervisor**: Prof. Saurav Mani Tripathi (KNIT SULTANPUR)
- **Topic**: Performance Investigation on Photovoltaic Power Generation System Working In Stand Alone Mode (July'14-May'15) **Using (MATLAB/ SIMULINK)**
- **Mini Project**: Green Android Techonology **(EEE 652 SEMINAR**) (april'13)

COURSES & SKILLS & CERTIFICATIONS

➢ **Relevant Courses:** Machine learning(online) | Deep Learning for Computer vision(online) | Datastructure and Algorithms(ongoing) |Linear Algebra and Probability | Mathematics and Computational Methods | Electronics Devices and characterization|ConrolSystem|Power SystemAnalysis |Electrical Machines| Power electronics and Devices|Microprocessors|Analog and Digital Electronics |Basic System Analysis|
➢ **Technical Skills** (**Tools/Frameworks**) TensorFlow, PyTorch, Keras, NumPy, pandas, sklearn, matplotlib, nltk, OpenCV
➢ **Software Skills**: Microsoft Office | MATLAB
➢ **Programming:** Python, C/C++
➢ **Operating Systems:** Windows, Linux*
➢ **SCAPS-**1D
➢ **Certifications : Completed Some online Certificate Courses titled as:**

• Completed a certificate Course on "Machine Learning A-Z™ Hands on Python and R in Data Science	• Understanding Banks and Financial Markets • Complete Investment Banking Course 2021 • Quality Management Course.
• Introduction to Tensor Flow For Artificial Intelligence,Machine Learning,and Deep Learning	• Programming, Data Structures and Algorithms using Python
• Python (Basics)	• Deep Learning
• Game Development using PyGame	• Build a Face Recongnition using python as AI- For – India-event

EXTRACURRICULAR ACTIVITIES

- Participated in HOOKERBOTZ 1.0 workshop conducted by I3indya Technologies at KNIT, Sultanpur (12-13 Dec'2014)
- Participated in Annual Drama competition, KNIT SULTANPUR
- Member of Badminton Team, KNIT SULTANPUR
- Coordinated with Robin Hood Army For Food Donation (KANPUR)

AWARDS & ACHIEVEMENTS

- **GOT (A*)(100/100)in Mathematics and Computational Methods in mtech iit kanpur**
- AIR (2141/112097)Graduate Aptitude Test in Electrical Engineering in 2019
- HackerRank handle: Certification of Basic Python and **450+ Points. (5 Star)**
- Certificate of honor worked in the capacity of organizer for Tvaran '13 A National Level Sports Meet of KNIT Sultanpur.

HOBBIES

- Badminton | Novel Reading | Gardening | Belly dancing