# NUR - A - ALAM PATWARY

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#### **EDUCATION**

**BS** Department of Nuclear Engineering

Feb-'16-Mar 21

University of Dhaka

#### TECHNICAL SKILL

Languages (C, C++, Python), Script (MatLab, Javascript ), Tools (Microsoft Office)

#### PROJECT & RESEARCH EXPERIENCE

#### **Loss of Coolant Accident Response System**

Dec '17 - Feb '18

(Guide - Asst. Prof. Jafor Dewan) (Undergraduate project)

Here a response system was created that detects the loss of coolant accident and takes the two necessary actions to protect the reactor core, which are the rapid insertion of safety control rods and sending coolant to the reactor vessel from the secondary source.

### MRI Image noise reduction and contrast enhancement

Nov'19 - June'20

(Guide – Asst. Prof. Faisal Rahman) (Undergraduate Thesis)

The purpose of this study was to determine the effectiveness of traditional filters that can eliminate noise and enhance contrast in x-ray images.

#### INDUSTRIAL EXPERIENCE

#### **Undergraduate Industrial training**

Feb'19-Mar'19

Nuclear and Radiation Chemistry Division (NRCD)

In this opportunity experiments were carried out on collected water from various points of the reactor establishment. Physico-chemical properties of the samples were measured.

## 1. Online course "Bioinformatics Specialization"

**June 20- July '20** 

University of California--San Diego (via Coursera), giving how to answer many questions in modern biology that have become inseparable from the computational approaches used to solve them.

skills gained - Whole Genome Sequencing, Viterbi Algorithm, Suffix Tree, Un-weighted Pair Group Method with Arithmetic Mean (UPGMA), HMM, Bioinformatics Algorithms, Dynamic Programming, Graph Theory (with certificate)

## 2. Online course "Algorithms"

Apr'20-Sept20

Stanford University (via Coursera), giving the basic knowledge of introduction to algorithms for learners with at least a little programming experience

Skills gained-Dynamic Programming ,Greedy Algorithm ,Divide And Conquer Algorithms ,Randomized Algorithm ,Sorting Algorithm ,Graphs Data Structure Hash Table Spanning Tree, Np-Completeness (with certificate)

#### 3. Online course "Introduction to Genetics and Evolution"

May20-July '20

Duke University (via Coursera), gives a very basic overview of some principles behind these very fundamental areas of biology

Skills gained –Biology, Genetics, Evolution, Genomics (with certificate)