

# Resume of Samar Kumar Rony

## Research Interest:

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- Electrical Circuits and Machines
- Power System Engineering
- DWDM, IP, SDH Technology
- Fiber Optics Communication
- Data Communication system with MUX, Router, Switch devices
- Communication Networks
- Renewable Energy

## Academic Information:

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Bachelor of Science, B.Sc. in **Electrical and Electronic Engineering (EEE)** from **University of Asia Pacific**, Dhaka

Major Field : Communication and Renewable Energy

CGPA : 3.49 out of 4.00

Merit Position : 18<sup>th</sup> among 120 students of the Department

Thesis : **Economic Evaluation of Off-Grid Electrification with Solar Home System (SHS)**

## Accolades:

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- Award certificates from Dean and Vice Chancellor list of meritorious student for academic result of last three semesters.
- Scholarship as tuition waiver in different semesters based on academic result.
- Participated and performed well in several “Inter University Project Fair”.
- Participated and performed in several debate competitions from “EEE Debating Club” and award certificate.
- Prize money as scholarship from Education Board, Barishal, Bangladesh

## Research Experience:

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- *Simulation and study* of an off grid solar power generation system for rural areas and during load shedding period of urban houses in Bangladesh. The load demand of a farm house in rural areas and urban areas during load shedding period is taken less than 135W to perform this study. This proposed SOLAR HOME SYSTEM (SHS) is stimulated in PVsyst, HOMER, RETScreen and the detail analysis, system description, results and comparison of these three stimulations are presented in undergraduate thesis.
- *Simulation and study* of High data-rate in OFDM signal using BPSK and QPSK modulation. Peak-to-Average Ratio (PAPR) and Intercarrier Interference (ICI) are two major challenges in implementing an OFDM system. In this work OFDM signal generation technology is presented by using two different modulation techniques step by step and PAPR performances of two OFDM signals which are generated by using two modulation techniques is also analyses here and the results were published in ajer.org (American Journal of Engineering Research)

## List of Publications:

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### Journal Articles:

- [3] **Samar Kumar Rony**, Nitu Sarkar ,Analysis of BER and PAPR by using Different Modulation Schemes in OFDM System.(*Manuscript is ready to be submitted* )
- [2] **Samar Kumar Rony**, Farhana Akter Mou, Md. Moshir Rahman, Performance Analysis of OFDM Signal Using BPSK and QPSK Modulation Techniques, e-ISSN: 2320-0847 p-ISSN: Volume-6, Issue-1, pp-108-117 Available: [http://www.ajer.org/papers/v6\(01\)/Q0601108117.pdf](http://www.ajer.org/papers/v6(01)/Q0601108117.pdf)
- [1] **Samar Kumar Rony**, Mamun Ahmed, Study and Design of Photo voltaic charger using Maximum Power Point Tracking (MPPT) method, IOSR Journal of Electronics and Communication Engineering (IOSR-JECE) ISSN: 2788-2845, ISBN: 2568-8375, PP: 25-43

### Undergraduate Projects

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- Wireless Power Transfer Circuit by 2N3904 & IN4148
- BCD to Seven Segment Decoder by using Boolean algebra and Logic Gates
- Water Level Indicator Using Logic Gates AND, NAND, OR, XOR, NOR
- NE555 Repellent Circuit
- CA7SDD Based Display Circuit with MicroTalk-8086
- PVsyst 6.0.6 Software Based Analysis of 135WP and 194WP Solar Home System (SHS) instead of IPS for Urban Area during Load Shedding Period
- 700W Solar-Wind Hybrid System for Rural Area. (RET Screen 4 & HOMER 2.68 beta Version)

### Professional Course

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Completed CCNA (Routing and Switching) Training- 2015

OSI and TCP/IP Model, IP Addressing V4. MAC Addressing, Subnet Mask, Gateway, Network Part, Host Part, CIDR, Classes of IP, Network and Broadcast ID, IP Subnetting, Private & Public IP Address, Supernetting, Internetworking Devices, Connecting to a CISCO Device

Completed Juniper Networks Certified Associate, Junos (JNCIA-JUNOS)

[https://www.certmetrics.com/juniper/candidate/cert\\_summary.aspx](https://www.certmetrics.com/juniper/candidate/cert_summary.aspx).

### Technical Skills:

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Programming Language	:	C, C++, Turbo C, DEV, Code Block,
Simulation	:	MATLAB, PSpice, Wincom, CISCO Packet Tracer
Clean Energy Analysis	:	PVsyst, RETScreen, HOMER 2.68 Beta
Embedded System	:	8051, 8086 Microcontroller's Operation System

### Power Station Visit Experience:

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102 MW Summit Power Limited, Madanganj, Narayanganj, Bangladesh, 242 MW Hydro Power Plant, Kaptai, Chittagong, Bangladesh, Cox'sbazar Grid Power Sub-Station, Cox'sbazar, Chittagong, Bangladesh

Employment Information:

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Worked as Assistant Engineer of **NTTN (Nationwide Telecommunication and Transmission Network)** at **Summit Communications Ltd (SCL)** From: February 2015 to 2019.

Responsibilities:

Service surveillance and alarm dispatch of nationwide Router , SDH and DWDM network, Fault handling of network & all NEs, System configuration & back-up ,Network Operation of ZTE, Huawei, Juniper, Tejas devices ,3G alarm reporting of GP, Robi, Airtel, Qubee , Teletalk, UG fiber interface monitoring with IIG, ITC, ICX clients, Planning of UG fiber mapping in Dhaka City, Measuring optical power with OTDR and fiber splicer machine

Working as Manager of IT at **BOESL (Bangladesh Overseas Employment and Services Limited)** Under **Ministry of Expatriates' Welfare and Overseas Employment.** From March 2019 to present.

Organization Affiliation:

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Member of “**THE INSTITUTION OF ENGINEERS, BANGLADESH (IEB)**”

Membership No. (A-16221)

Member of “**BANGLADESH COMPUTER SOCIETY**”

Membership No. (AM-12778)

Contact Information:

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With Thanks

(Samar Kumar Rony)