

# Saidul Alam Chowdhury

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**Analog RF Power Circuit Lab**  
Head: **Prof. Ahn Dukju**  
Dept. of Electrical Engineering  
Incheon National University,  
South Korea

## RESEARCH INTERESTS

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Power electronics

- Wireless Power Transfer
- Electromagnetics
- Portable Devices, Electric Vehicle, Automatic Guided Vehicle

RF/analog circuit design

- Portable Devices
- Biomedical Applications

## EDUCATION

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Feb. 2024 (Exp.)	Ph.D.	<b>Incheon National University (INU)</b> in Electrical Engineering Advisor: Prof. Ahn Dukju
Aug. 2021	M.S.	<b>Incheon National University (INU)</b> in Electrical Engineering Advisor: Prof. Ahn Dukju
Nov. 2017	B.Sc.	<b>Chittagong University of Engineering and Technology (CUET)</b> in Electrical and Electronic Engineering

## EXPERIENCES

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Sept. 2019 – Present	<b>Incheon National University, Incheon, South Korea</b> Graduate Research Assistant Analog RF Power Circuit Lab
Jan. 2018 – Aug. 2019	<b>Pran-RFL Group, Dhaka, Bangladesh</b> Assistant Engineer

## PUBLICATIONS

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Journals

1. **Saidul Alam Chowdhury**; Seong-Min Kim; Sang-Won Kim; Jungick Moon; In-Kui Cho; Dukju Ahn, "Reducing/Increasing Tuning Capacitor for Frequency-Modulated Spread-Spectrum Inductive Power Transfer," *IEEE Transactions on Power Electronics*, August 2023.
2. **Saidul Alam Chowdhury**; Seong-Min Kim; Sang-Won Kim; Jungick Moon; In-Kui Cho; Dukju Ahn, "Automatic Tuning Resonant Capacitor to Fix the Bidirectional Detuning With ZVS in Wireless Power Transfer," *IEEE Transactions on Industrial Electronics*, July 2023.
3. **Saidul Alam Chowdhury**; Sang-Won Kim; Seong-Min Kim; Jungick Moon; In-Kui Cho; Dukju Ahn, "Automatic Tuning Receiver for Improved Efficiency and EMI Suppression in Spread-Spectrum Wireless Power Transfer," *IEEE Transactions on Industrial Electronics*, March 2022.

## Conferences

1. **Saidul Alam Chowdhury**; Dukju Ahn, "Self-Tuning LCC Receiver for Improved Efficiency and EMI Mitigation in Spread-Spectrum Wireless Power Transfer," *IEEE Wireless Power Technology Conference and Expo 2023 (WPTCE)*, accepted for publication.
2. **Saidul Alam Chowdhury**; Dukju Ahn; Seong-Min Kim; Sang-Won Kim; Jungick Moon; In-Kui Cho, "Automatic Resonance Tuning Receiver for Spread-Spectrum EMI Suppression," *Korean Electrical Society Conference Proceedings*, 2022.
3. Dukju Ahn; **Saidul Alam Chowdhury**, "Resonant Inverter with Self-Calibration of Coil Inductance Detuning," *EAPPC & BEAMS 2022, Abstract No.A20220427-0719*.
4. **Saidul Alam Chowdhury**; Om Prakash Bose; Quazi Delwar Hossain, "Design of a Two Stage CMOS Operational Amplifier in 100nm Technology with Low Offset Voltage," *2018 International Conference on Innovations in Science, Engineering and Technology (ICISSET)*.

## RESEARCH GRANTS

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- **Institute of Information & communications Technology Planning & Evaluation (IITP)**  
Funded by Korea government (MSIT) (**Grant Number**: 2022-0-00452)  
Development of 3.3kW cluster wireless charging technologies for robot.
- **Electronics and Telecommunications Research Institute (ETRI)**  
(**Grant Number**: 23ZH1140)  
Study on 3D Communication Technology for Hyper-Connectivity.
- **Institute of Information and Communications Technology Planning and Evaluation**  
Funded by Korea government (**Grant Number**: IITP2020-0-00618)  
Development of commercialization technology for ultrasmall high efficiency wireless charging for 1 kW class robot.

## SKILLS

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Software	LTspice, PSIM, ADS, Diptrace, Code Composer Studio, Ansys Maxwell-3D, Matlab, Microsoft Visio
HARDWARE	Power converters, PID controller, PCB fabrication, Switching devices, Microcontroller, Sensors, Coil fabrication, Measurement instruments: EHP-200A EMF Analyzer, Vector Network Analyzer, Digital LCR meter, Oscilloscope

## AWARDS & SCHOLARSHIPS

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Sep. 2021	Full Scholarship for Ph.D., Incheon National University
Sep. 2019	Full Scholarship for masters, Incheon National University

## REFERENCES

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**Prof. Ahn Dukju** (Ph.D. Advisor)  
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