

Currently Pursuing Course and Career Objective

I am presently pursuing PhD in Electrical Engineering at Indian Institute of Technology, Bombay under the Prime Minister’s Research Fellowship. My specialisation is Power Electronics, Machine and Drives. After completing PhD, I wish to continue research works in the field of power electronics, electric machines and drives. I wish to become an academic in future.

Academic Details

Examination/Degree	Institute	Board/University	Year	CGPA/Percentage
Doctor of Philosophy	Indian Institute of Technology, Bombay	Indian Institute of Technology, Bombay	From 2020	9.0/10.0
Dual Degree (5 year integrated B.Tech.-M.Tech. in Electrical Engineering)	Indian Institute of Engineering Science and Technology, Shibpur (Specialisation: Power Electronics, Machines and Drives)	Indian Institute of Engineering Science and Technology, Shibpur	2020	B.Tech.: 9.21/10 (86.39% 1 st class honours) M.Tech.: 9.5/10 (88.39%, 1 st class)
Higher Secondary	Ramakrishna Mission Boys’ Home High School, Rahara	WBCHSE	2015	93.40%
Madhyamik (Secondary)	Ramakrishna Mission Boys’ Home High School, Rahara	WBBSE	2013	91.57%

Completed Projects

1. Master Degree project entitled “**Investigations on Switched Reluctance Machines and Their Power Converters**”.
Laboratory: Advanced Power Electronics Laboratory, Dept. of EE, IEST Shibpur
Supervisor: Dr. Mainak Sengupta
Outcomes: i. Thorough analysis and simulation of radial flux rotary SRMs.
ii. Development of a complete experimental set-up (including PE converters, controller and loading arrangements) of a pre-fabricated 3 phase SRM.
iii. Development of speed control strategies of SRM.
iv. Development and testing of a real time model of SRM.
v. Design, analysis and simulation of a linear SRM.
2. Design, fabrication and testing of a 5V/24V flyback converter.
3. Power project, to make a $\pm 5V$ DC power supply from domestic power supply, under the circuit club of IESTs.
4. Converting sound energy (noise) to usable electrical energy, Mini Project, 3rd Semester, IEST, Shibpur.
5. Astable Multivibrator under circuit club of IEST, Shibpur.
6. Room temperature control of ceiling fans, 4th Semester, IEST, Shibpur.

Research Internships

1. I have studied and analyzed switched reluctance motor, its construction, principle as well as its power electronic converters and their control. I have 10 weeks of working experience in this topic. (Advanced Power Electronics Laboratory, IEST Shibpur, May, 2017 - July, 2017, December 2017)
2. I have designed and fabricated a general purpose gate driver circuit for driving power electronic switches. I have designed and fabricated fly-back converter, in both open loop and closed loop configurations. These have been successfully tested. (Advanced Power Electronics Laboratory, IEST, Shibpur, May, 2018 - July, 2018)

Student Exchange Program

I participated at International Linkage Degree Program Start+ organized by Hiroshima University, Japan as a special auditing student at Hiroshima University (June 2018-July 2018).

Scholarships

1. Ministry of Human Resource Development, Government of India, post-graduate scholarship, July, 2019-August, 2020.
2. Prime Minister's Research Fellowship (PMRF) for pursuing PhD in Electrical Engineering (December cycle 2019).
3. Japanese Government Monbukagakusho (MEXT) Scholarship, 2020. (Declined from my side)

Extra-curricular Activities

I have been an active member of Les Thespians, the dramatic society of IEST, Shibpur. I have acted in several dramas and have participated in other activities of the dramatic society.

Technical Skills

Electric machine design and drives, Power electronic converters, ANSYS, MATLAB, PCB Design, TMS320 DSPs, LaTeX.

Publication

Saptarshi Dey, Devraj Roy, Mainak Sengupta, *Real Time Simulation of a Switched Reluctance Motor on a Miniature Full Spectrum Simulator*, National Power Electronics Conference (NPEC), December, 2019, NIT Tiruchirapally.

Miscellaneous

1. I participated in Instruo'16, the techno-management festival of IESTs. Our team qualified in the first round of the two round event, Wired-In.
2. I participated in Electroquip 2.0 at IEST Shibpur in 2016 and our team secured the third position.
3. I had been one of the event managers of WIRED-In, Instruo, 2k17 at IEST Shibpur and conducted various stages of the event. I had a major contribution as a question paper setter.

Referee

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