

# Curriculum Vita of Dr. Md. Sazzadur Rahman



## **DR. MD. SAZZADUR RAHMAN**

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## **PROFILE**

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I have received my Ph.D. in Material Science (Surface Science) from Kyushu University, Japan as a MEXT scholarship grantee in 2015. During my Ph.D. course I studied surface (2D) structure determination of Si and Ge adsorption on Ni(111) and Ag(111) in order to study the graphene analogy of Si and Ge and also the phase evolution and characteristics at high temperature. The aim of the study was to find the suitable application of graphene analogy of Si and Ge in the field of computer and communication hardware. Previously I received my B. Sc. (Hons.) degree and M. S. degree in Applied Physics, Electronics and Communication Engineering from University of Dhaka, Bangladesh in 2005 (held on 2007) and 2006 (held on 2009), respectively. I have about 9 years' experiences of research and teaching in the fields of Electronics, Communication Engineering and Material Science. I received the government scholarship during my Bachelor and Masters courses.

Now I am working as an Assistant Professor in the Institute of Information Technology (IIT), Jahangirnagar University, Savar, Dhaka-1342, Bangladesh from 12 November 2018 to till date. Previously, I had joined to the department of Electronics and Communication Engineering under the faculty of Computer Science and Engineering, Hajee Mohammad Danesh Science and Technology University (HSTU), Dinajpur, Bangladesh in 2009 as a Lecturer (part time) and became a permanent Lecturer in 2010 and prompted to the post of Assistant Professor in 2012 and worked there as an Associate Professor from 10 May 2017 to 11 November 2018.

## EDUCATIONAL QUALIFICATIONS

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Degree	Institute	Concentration	Results
Ph.D.	Kyushu University, Fukuoka, Japan	Material Sciences (Surface Science)	Completed
M. S (Thesis)	Faculty of Engineering and Technology, University of Dhaka	Applied Physics, Electronics and Communication Engineering	First Class (74.13 % Marks Position: 10 <sup>th</sup> )
B. Sc. (Hons.)	Faculty of Engineering and Technology, University of Dhaka	Applied Physics, Electronics and Communication Engineering	First Class (66.19 % Marks Position: 8 <sup>th</sup> )
Higher Secondary Certificate (H. S. C.)	Cantonment Public School and College, Rangpur.	Science	First Division (87.6 % Marks)
Secondary School Certificate (S. S. C.)	Badarganj High School, Rangpur.	Science	First Division (80.1 % Marks)

## RESEARCH INTERESTS

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***Electronics, Material Sciences in Computer Application, Communication Engineering, and Nanotechnology.***

## RESEARCH PUBLICATIONS

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### **Ph.D. Thesis**

**Md. Sazzadur Rahman**, “*Surface structure investigations of silicon and germanium on transition metals (Ag and Ni)*” PhD thesis in partial fulfillment of the requirement for the PhD degree by research in Surface Science from Dept. of Molecular and Material Sciences, Kyushu University, Japan in 2015.

### **M.S Thesis**

**Md. Sazzadur Rahman**, “*Study of different top metal contact design for solar cells*” M.S thesis in partial fulfillment of the requirement for the M.S degree by research, Dept. of Applied Physics, Electronics and Communication Engineering, University of Dhaka, 2009 (Exam 2006, held in 2009).

## PEER REVIEWED JOURNAL PUBLICATIONS:

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1. **Md. Sazzadur Rahman**, Md. Amirul Islam, Bidyut Baran Saha, Takeshi Nakagawa, and Seigi Mizuno, Structure determination of the ordered ( $2 \times 1$ ) phase of NiSi surface alloy on Ni(111) using low-energy electron diffraction, Japanese Journal of Applied Physics, 54, pp. 125701, November, 2015.
2. **Md. Sazzadur Rahman**, Takeshi Nakagawa, and Seigi Mizuno, Structure determination of the ordered ( $\sqrt{3} \times \sqrt{3}$ ) $R30^\circ$  phase of Ni<sub>2</sub>Si and Ni<sub>2</sub>Ge surface alloys on Ni(111) via low-energy electron diffraction, Surface Science, Elsevier, 642, pp. 1-5, August, 2015.
3. **Md. Sazzadur Rahman**, Takeshi Nakagawa, and Seigi Mizuno, Growth of Si on Ag(111) and determination of large commensurate unit cell of high-temperature phase, Japanese Journal of Applied Physics, 54, pp. 015502, December, 2014.
4. **Md. Sazzadur Rahman**, Takeshi Nakagawa, and Seigi Mizuno, Germanene: Experimental study for graphene like two dimensional germanium, Evergreen - Joint Journal of Novel Carbon Resource Sciences & Green Asia Strategy, Vol.1, Issue: 2, pp. 25-29, September, 2014.
5. **Md. Sazzadur Rahman**, Md. Walid Islam, Imtiaz Mahmud and Md. Mehedi Islam, Design of Grid-connected Photovoltaic Systems and Technical Requirements in case of Grid Failure, International Journal of Electronics & Informatics, ISSN: 2186-0114, Vol.2, No.2, pp.9-15, December, 2013.
6. **Md. Sazzadur Rahman**, Md. Shahidut Tarif, and Md. Zahirul Hoque Mozumder, Parameter sensitivity analysis of busbar loss for different top contact pattern of concentrated solar cells, Journal of Science and Technology, ISSN 1994-0386, Vol. 9 & 10, pp.54-59, April 2012.
7. Md. Shahidut Tarif, **Md. Sazzadur Rahman**, and Md. Zahirul Hoque Mozumder, Simulation of Single and Multistate Fading Models and Derivation of Average Probability Density Function for Fading Channels, Journal of Science and Technology, ISSN 1994-0386, Vol. 9 & 10, pp. 72-80, April 2012.
8. **M. Sazzadur Rahman**, M. Shahidut Tarif, M. Mahabub Hossain, M. Zahirul Hoque Mozumder, and M. Mehedi Islam, Study the effect of frequency reuse factor on hardware design of a GSM wireless network, Bangladesh Research Publications Journal, ISSN 1998-2003, Vol. 5, Issue: 1, pp. 16-21, February, 2011.
9. M. Mehedi Islam, M. Mahabub Hossain, **M. Sazzadur Rahman**, and M. Mostafizer Rahman, Performance Evaluation of Pseudo-random Noise and Hadamard-Walsh Sequences for Hamming Coded WCDMA system over AWGN and Fading Channels, Bangladesh Research Publications Journal, ISSN 1998-2003, Vol. 3, Issue: 4, pp. 1122-1128, April, 2010.
10. M. Mehedi Islam, M. Mahabub Hossain, **M. Sazzadur Rahman**, M. Mominul Islam and M. Safiqul Islam, BER Evaluation of Low-density Parity-check Coded OFDM System under Different Modulation Schemes, Journal of Science and Technology Institutional Engineering and Technology, Vol.1, Issue: 1, pp. 1-4, January, 2010.

## CONFERENCE PUBLICATIONS:

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- 1. Md. Sazzadur Rahman**, Elias Hossain, Kanak Kumar Barman, and Keshob Chandra Roy, "Design, optimization and financial analysis of a grid tied PV system for a green campus using PVsyst software", 5<sup>th</sup> International Conference on natural science and technology (ICNST'18), AUN, Chittagong, 30-31 March 2018.
- 2. Md. Sazzadur Rahman**, Takeshi Nakagawa, and Seigi Mizuno, "*Structural analysis of Si and Ge adsorbed Ni(111)*", Japan Physical Society autumn meeting, Kansai University, 16-19 September, 2015.
- 3. Md. Sazzadur Rahman**, Takeshi Nakagawa, and Seigi Mizuno, "*Growth of silicon layer on Ag(111) and formation of Si-Ag surface alloy at high temperature*", The 7<sup>th</sup> International Symposium on Surface Science, Shimane, Japan, 2-6 November, 2014.
- 4. Md. Sazzadur Rahman**, Takeshi Nakagawa, and Seigi Mizuno, "*Surface structure study of Si and Ge adsorption on Ag(111) surface by Low Energy Electron Diffraction*", International Union of Materials Research Societies- The 15th IUMRS International Conference in Asia, Fukuoka, Japan, 24-30 August, 2014.
- 5. Md. Sazzadur Rahman**, Takeshi Nakagawa, and Seigi Mizuno, "*Study the surface structure evolution of Si-adsorption on Ag(111) by LEED-AES*" 3rd International Conference on Informatics, Electronics and Vision (ICIEV), Dhaka, Bangladesh, 23-24 May, 2014. **[Received the best paper award]**
- 6. Md. Sazzadur Rahman**, Takeshi Nakagawa, and Seigi Mizuno, "*Surface structure study of Germanium adsorption on Ag(111) surface by Low Energy Electron Diffraction*", Japan Physical Society spring meeting, the university of Tokai, 27-30 March 2014.
- 7. Imtiaz Mahmud**, Md. Olioul Islam, **Md. Sazzadur Rahman**, Md. Walid Islam, and A.H.M Tasbir Farid, "*Co-operative Solar Energy: A proposal to Enlighten the Tribal people in Bangladesh*", 3rd International Conference on Environmental Aspects of Bangladesh, Kitakyushu, Japan, 13-14 October, 2012. **[Received the best presenter award]**
- 8. Md. Sazzadur Rahman**, Md. Walid Islam, and Md. Zahirul Hoque Mozumder, "*Shadowing Loss Analysis for Different Top Contact Pattern of Concentration Solar Cell*", 1st International Conference on Informatics, Electronics and Vision (ICIEV), Dhaka, Bangladesh, May, 2012.
- 9. Md. Sazzadur Rahman**, Md. Toufiq Zaman, Md. Sakib Yasir, Md. Walid Islam, and Zahid Hasan Mahmood, "*Study the effect of temperature and irradiance on photovoltaics under climatic conditions of Bangladesh*", National Seminar on Promotion of Renewable Energy in Bangladesh, Khulna, Bangladesh, 18-19 March, 2012.

## PERSONAL INFORMATION

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Father`s name : Md. Wahedul Islam  
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## REFERENCES

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- 1. Prof. Dr. Seigi Mizuno**  
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