Teachers' Profile

1. ***Name of the faculty member:*** Shaikh Safikul Alam
2. ***Designation:*** Assistant Professor
3. ***Department:*** Physics
4. ***Specialization:*** Nuclear Physics
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6. ***Academic Qualifications:***

College/University from which the degree was obtained	Abbreviation of the degree
University of Calcutta	B.Sc. in Physics (Hons.)
University of Calcutta	M.Sc. in Pure Physics
Variable Energy Cyclotron Centre (VECC), Kolkata; Homi Bhabha National Institute (HBNI), Department of Atomic Energy (DAE), Mumbai	PhD (in progress)

7. ***Other Qualifications:*** NET (2013), GATE (2013), GATE (2014)
8. ***Date of Joining in W.B.E.S:*** 21.07.2020
9. ***Date of Joining in in this College:*** 21.07.2020

10. ***Research Interest:*** Study of Experimental Nuclear Structure, Nuclear Spectroscopy; Development of Fast Timing Array, Measurement of Lifetime and Quadrupole Moment, Large Basis Shell Model Calculation etc.

11. ***Published Articles:***

A. Published in Peer Reviewed Journals:

1. *"VECC Array for Nuclear fast Timing and AngUlar CorRElation Studies (VENTURE)"*
   S.S. Alam, T. Bhattacharjee, D. Banerjee, A. Saha, Deepak Pandit, D. Mondal, S. Mukhopadhyay, P. Bhaskar, S.K. Das, S.R. Banerjee. Nuclear Instruments and Methods in Physics Research, **A 874** (2017) 103.

2. *"Spectroscopy of low lying states in ^{150}Sm"*
   A. Saha, T. Bhattacharjee, **S.S. Alam**, D. Banerjee, M. Saha Sarkar,

S. Sarkar, J.B. Gupta, P. Das, Soumik Bhattacharya, Deepak Pandit, R. Guin, S.K. Das, S.R. Banerjee. Nuclear Physics **A 976** (2018) 1.

3. *"Yrast and non-yrast spectroscopy of ^{199}Tl using α-induced reactions"*
   Soumik Bhattacharya, S. Bhattacharyya, R. Banik, S. Das Gupta, G. Mukherjee, A. Dhal, **S.S. Alam**, Md. A. Asgar, T. Roy, A. Saha, S. Nandi, T. Bhattacharjee, A. Choudhury, Debasish Mondal, S. Mukhopadhyay, P. Mukhopadhyay, S. Pal, Deepak Pandit, I. Shaik, and S.R. Banerjee. Physical Review **C 98** (2018) 044311.

4. *"Lifetimes and transition probabilities for the low-lying states in ^{131}I and ^{132}Xe."*
   S.S. Alam, T. Bhattacharjee, D. Banerjee, A. Saha, M. Saha Sarkar, and S. Sarkar. Physical Review **C 99** (2019) 014306.

5. *"Study of radioactivity built-up and decay with singles time-stamped data"*
   S. Das, A. De, B. Dey, S. Sharma, A. Adhikari, **S.S. Alam**, A. Gupta, Y. Sapkota, A. Das, A. Saha, D. Pramanik, T. Bhattacharjee, A. Bisoi, S. Sarkar and M. Saha Sarkar. JINST **14** (2019) T09006.

6. *"Single crystal HPGe (80%) versus BGO shielded CLOVER detector for high precision decay rate measurements*: a comparative study"
   S. Pathak, P. Das, A. K. Sikdar, J. Nandi, S. Bhattacharyya, T. Bhattacharjee, Soumik Bhattacharya, **S.S. Alam**, A. Ray. Journal of Radioanalytical and Nuclear Chemistry **323** (2020) 1353.

7. *"Measurement of Electric Quadrupole moment in neutron rich $^{131;132}$I"*
   S.S. Alam, D. Banerjee, T. Bhattacharjee, P. Blaha, D. Kumar, A. Saha, M. Saha Sarkar, S. Sarkar, and S.K. Das. European Physical Journal **A 56** (2020) 269.

8. *"Decay spectroscopy of $^{117;118}$Sn"*
   Sangeeta Das, Anik Adhikari, **S.S. Alam**, Sathi Sharma, Suman Aich, Arkabrata Gupta, Y. Sapkota, Ananya Das, A. Saha, S.K. Dey, Dibyadyuti Pramanik, Abhijit Bisoi, Indrani Ray, T. Bhattacharjee, C.C. Dey, S. Sarkar, M. saha Sarkar. Nuclear Physics **A 1006** (2021) 122079.

B. <u>Publications in Symposia:</u>

1. "*Fast Timing measurement in neutron rich ^{131,132}I"*
   S.S. Alam, T. Bhattacharjee, D. Banerjee, A. Saha, P. Das,

S.K. Das. Proceedings of the DAE Symposium on Nuclear Physics **60** (2015) 270.

2. *"Angular Correlation measurement around Z=64"*
   N. Sensharma, **S.S. Alam,** D. Banerjee, T. Bhattacharjee, A. Saha, S.K. Das. Proceedings of the DAE Symposium on Nuclear Physics **60** (2015) 272.

3. "*Search for isomeric state in odd-odd ^{150}Pm"*
   A. Saha, D. Banerjee, T. Bhattacharjee, Deepak Pandit, **S.S. Alam** P. Das, Soumik Bhattacharya, A. Choudhury, S. Bhattacharyya, A. Mukherjee, R. Guin, S.K. Das, S.R. Banerjee Proceedings of the DAE Symposium on Nuclear Physics **60** (2015) 98.

4. *"Study of Nuclear Structure in odd-odd ^{122,124}I"*
   S.S. Alam, A. Saha, T. Bhattacharjee, D. Banerjee, Md. A. Asgar, R. Banik, S. Bhattacharyya, Soumik Bhattacharya, A. Dhal, D. Mondal, G. Mukherjee, S. Mukhopadhyay, S. Pal, D. Pandit, T. Roy, and S.R. Banerjee. Proceedings of the DAE Symposium on Nuclear Physics **61** (2016) 316.

5. *"Decay spectroscopy of fission fragments around ^{132}Sn"*
   S.S. Alam, D. Banerjee, A. Saha, T. Bhattacharjee, S.K. Das. Proceedings of the DAE Symposium on Nuclear Physics **61** (2016) 318.

6. *"$CeBr_3$ detector array for measurement of lifetime and transition moment at VECC, Kolkata"*
   S.S. Alam, T. Bhattacharjee, D. Banerjee, S. Mukhopadhyay, D. Mondal, A. Saha, D. Pandit, S. Pal, P. Bhaskar, S. K. Das, S. R. Banerjee. Proceedings of the DAE Symposium on Nuclear Physics **61** (2016) 320.

7. *"Angular Correlation and lifetime measurement in ^{150}Pm"*
   A. Saha, **S.S. Alam**, D. Banerjee, T. Bhattacharjee, S. R. Banerjee. Proceedings of the DAE Symposium on Nuclear Physics **61** (2016) 300.

8. *"VECC array for Nuclear Spectroscopy (VENUS)"*
   Soumik Bhattacharya, R. Banik, **S.S. Alam**, A. Saha, Md. A. Asgar, T. Roy, A. Chowdhury, I. Sheikh, P. Mukhopadhyay, A. Dhal, T. Bhattacharjee, S. Bhattacharyya, G. Mukherjee, S.

Mukhopadhyay, D. Mondal, D. Pandit, S. Pal, S.R. Banerjee. Proceedings of the DAE Symposium on Nuclear Physics **61** (2016) 98.

9. *"Oblate band structure based on $\pi h_{9/2}$ orbital in ^{199}Tl"*
   Soumik Bhattacharya, S. Bhattacharyya, R. Banik, G. Mukherjee, S. Das Gupta, **S.S. Alam**, A. Dhal, Md. A. Asgar, T. Roy, A. Saha, T. Bhattacharjee, S. Mukhopadhyay, D. Pandit, D. Mondal, S. Pal, S. R. Banerjee. Proceedings of the DAE Symposium on Nuclear Physics **61** (2016) 188.

10. "*Half-life and β-feeding measurements of ^{207}Po by γ-spectroscopy method"*
    A. Dhal, R. Ghosh, A. G. Nair, G. Mukherjee, Md. A. Asgar, T. Roy, T. K. Rana, T. K. Ghosh, K. Banerjee, S. Kundu, R. Pandey, Pratap Roy, S. Manna, A. Sen, A. Dey, J. K. Meena, J. K. Sahoo, A. K. Saha, R. Banik, Soumik Bhattacharya, A. Saha, **S.S. Alam**, D. Mondal, D. Pandit, S. Mukhopadhyay, S. Pal, T. Bhattacharjee, S. Bhattacharyya, C. Bhattacharya, S. R. Banerjee. Proceedings of the DAE Symposium on Nuclear Physics **61** (2016) 266.

11. *"Study of multi-quasiparticle band structures in ^{197}Tl using α-beam"*
    G. Mukherjee, S. Nandi, H. Pai, T. Roy, Md. A. Asgar, A. Dhal, R. Banik, Soumik Bhattacharya, A. Saha, **S.S. Alam**, S. Bhattacharyya, C. Bhattacharya, Pratap Roy, T. K. Ghosh, S. Kundu, K. Banerjee, T. K. Rana, R. Pandey, S. Manna, A. Sen, S Pal, S Mukhopadhyay, D. Pandit, D. Mondal, T. Bhattacharjee, A. Dey, J. K. Meena, A. K. Saha, J. K. Sahoo, R. Mondal Saha, A. Choudhury, S.R Banerjee. Proceedings of the DAE Symposium on Nuclear Physics **61** (2016) 270.

12. *"Lifetime measurement in neutron rich nuclei around ^{132}Sn"*
    S.S. Alam, D. Banerjee, A. Saha, T. Bhattacharjee. Proceedings of the DAE Symposium on Nuclear Physics **62** (2017) 212.

13. *"Determination of Fission Product Yield for Lifetime and Quadrupole Moment Measurement"*
    D. Banerjee, **S.S. Alam**, Sk Wasim Raja, A. Saha, T. Bhattacharjee. Proceedings of the DAE Symposium on Nuclear Physics **62** (2017) 424.

14. *"High spin structure and neutron alignment in ^{197}Tl"*
S. Nandi, G. Mukherjee, H. Pai, T. Roy, Md. A. Asgar, A. Dhal, R. Banik, S. Bhattacharya, A. Saha, **S.S. Alam**, S. Bhattacharyya, C. Bhattacharya, P. Roy, T.K. Ghosh, S. Kundu, K. Banerjee, T.K. Rana, R. Pandey, S. Manna, A. Sen, S. Pal, S. Mukhopadhyay, D. Pandit, D. Mondal, T. Bhattacharjee, A. Dey, J.K. Meena, A.K. Saha, J.k. Sahoo, R. Mandal Saha, A. Choudhury, S.R. Banerjee. Proceedings of the DAE Symposium on Nuclear Physics **62** (2017) 80.

15. *"Isomers in $^{117,118}Sn$ and role of neutron $1h_{11/2}$ orbit"*
Sangeeta Das, Sathi Sharma, **S.S. Alam**, Arkabrata Gupta, Anik Adhikari, Ananya Das, A. Saha, S. K. Dey, Dibyadyuti Pramanik, Abhijit Bisoi, T. Bhattacharjee, C. C. Dey, S. Sarkar, M. Saha Sarkar. Proceedings of the DAE Symposium on Nuclear Physics **62** (2017) 84.

16. *"Deformed structure based on $vi_{13/2}$ orbital in ^{199}Hg"*
Soumik Bhattacharya, S. Bhattacharyya, R. Banik, S. Das Gupta, **S.S. Alam**, A. Dhal, Md. A. Asgar, T. Roy, A. Saha, T. Bhattacharjee, S. Mukhopadhyay, D. Pandit, D. Mondal, S. Pal, S. R. Banerjee. Proceedings of the DAE Symposium on Nuclear Physics **62** (2017) 118.

17. *"Decay spectroscopy of ^{118m}Sb"*
Sathi Sharma, Sangeeta Das, **S.S. Alam**, Arkabrata Gupta, Anik Adhikari, Ananya Das, A. Saha, Dibyadyuti Pramanik, Abhijit Bisoi, Indrani Ray, T. Bhattacharjee, S. Sarkar, M. Saha Sarkar. Proceedings of the DAE Symposium on Nuclear Physics **62** (2017) 204.

18. "Study of nuclear structure in ^{125}I"
S.S. Alam, D. Banerjee, T. Bhattacharjee, A. Saha, S. W. Raja, S. Das, A. Adhikari, A. De, A. Gupta, A. Das, Y. Sapkota, S. Sharma, S. Dey Chaudhuri, D. Pramanik, A. Bisoi, M. Saha Sarkar, S. Sarkar. Proceedings of the DAE Symposium on Nuclear Physics **63** (2018) 356.

19. *"Pulse processing electronics for γ-γ fast timing array at VECC"*
S.S. Alam, D. Kumar, D. Banerjee, S. Dey Chaudhuri, T. Bhattacharjee. Proceedings of the DAE Symposium on Nuclear Physics **63** (2018) 1212.

20. *"Lifetime measurement of $3/2^+_1$ state of ^{117}Sn"*
Sangeeta Das, Suman Aich, A. Adhikari, **S.S. Alam**, Sathi Sharma, B. Dey, Arkabrata Gupta, Y. Sapkota, A. Das, A. Saha, S.K. Dey, Dibyadyut Pramanik, D. Banerjee, T. Bhattacharjee, C.C. Dey, Abhijit Bisoi, S. Sarkar, M. Saha Sarkar. Proceedings of the DAE Symposium on Nuclear Physics **63** (2018) 270.

21. *"Spectroscopy of long lived fission fragments in A ~100-140 region"*
Wasim Raja Sk, D. Banerjee, **S.S. Alam**, T. Bhattacharjee, R. Acharya, P.K. Pujari. Proceedings of the DAE Symposium on Nuclear Physics **63** (2018) 290.

22. *"Lifetime measurement of low lying states of ^{27}Si"*
Sathi Sharma, Sangeeta Das, Arkajyoti De, Rashika Gupta, A. Gupta, A. Adhikari, A. Das, Y. Sapkota, A. Saha, **S.S. Alam**, S. Bhattacharya, R. Banik, S. Nandi, S. Das, S. Samanta, S. Chatterjee, S. Bhattacharyya, B. Dey, D. Pramanik, A. Bisoi, T. Bhattacharjee, M. Nandy, S. Sarkar, M. Saha Sarkar. Proceedings of the DAE Symposium on Nuclear Physics **63** (2018) 320.

23. *"Spectroscopy of $^{160,161}Ho$"*
A. Adhikari, D. Pramanik, S. Das, Arkabrata Gupta, Y. Sapkota, Ananya Das, S. Sharma, A. De, A. Saha, **S.S. Alam**, S. Das, S. Samanta, S. Chatterjee, S. Bhattacharya, R. Banik, S. Nandi, R. Raut, S.S. Ghugre, S. Bhattacharyya, G. Mukherjee, T. Bhattacharjee, A. Bisoi, M. Saha Sarkar, S. Sarkar. Proceedings of the DAE Symposium on Nuclear Physics **63** (2018) 332.

24. *"Life-time Measurement of levels in $^{160\text{-}162}Dy$ nuclei"*
A. Adhikari, S. Das, **S.S. Alam**, D. Pramanik, S. Sharma, Y. Sapkota, Arkabrata Gupta, Ananya Das, A. Saha, D. Banerjee, T. Bhattacharjee, A. Bisoi, M. Saha Sarkar, S. Sarkar. Proceedings of the DAE Symposium on Nuclear Physics **63** (2018) 338.

25. *"Singles time stamped data in In-beam spectroscopy"*
Sangeeta Das, Arkajyoti De, B. Dey, Sathi Sharma, A. Adhikari, **S.S. Alam**, Arkabrata Gupta, Y. Sapkota, A. Das, A. Saha, Dibyadyuti Pramanik, D. Banerjee, T. Bhattacharjee, Abhijit Bisoi, S. Sarkar, M. Saha Sarkar. Proceedings of the DAE Symposium on Nuclear Physics **63** (2018) 1144.

26. *"VECC-INGA: An exploration of nuclear structure with light ions"*
Soumik Bhattacharya, R. Banik, S. Nandi, Sajad Ali, S.

Chatterjee, S. Das, S. Samanta, K. Basu, A. Choudhury, A. Adhikari, **S.S. Alam**, Shabir Dar, B. Das, Sangeeta Das, A. Dhal, A. Mondal, K. Mondal, P Mukhopadhyay, H. Pai, P. Ray, A. Saha, I. Shaik, C. Bhattacharya, G. Mukherjee, R. Raut, S. S. Ghugre, A. Goswami, S. Bhattacharyya. Proceedings of the DAE Symposium on Nuclear Physics **63** (2018) 1156.

27. *"Measurement of Quadrupole Moment by Perturbed γ-γ Angular Correlation in n-rich Iodine nuclei"*
D. Banerjee, **S.S. Alam.** Proceedings of the National Symposium on Nuclear and Radiochemistry **13** (2018).

28. *"Measurement of Electric Quadupole moment in neutron rich ^{131,132}I by Perturbed γ-γ Angular Correlation Spectroscopy and Theoretical Calculations"*
S.S. Alam, D. Banerjee, T. Bhattacharjee, P. Blaha, M. Saha Sarkar, S. Sarkar, and S. K. Das. Proceedings of the International Conference on Hyperfine Interactions and their Applications, HYPERFINE 2019.

29. *"Measurement of Quadrupole moments in neutron rich Iodine nuclei"*
S.S. Alam, T. Bhattacharjee, D. Banerjee, A. Saha, M. Saha Sarkar, S. Sarkar, S. K. Das. Proceedings of the Frontiers in Gamma ray Spectroscopy, FIG2018.

30. *"γ-γ fast timing measurements in neutron rich Xenon nuclei''*
S. S. Alam, Devesh Kumar, Shefali Basak, D. Banerjee, S.K. Das, M. Saha Sarkar, T. Bhattacharjee. Proceedings of the DAE Symposium on Nuclear Physics **64** (2019) 278.

31. *"Near-yrast exotic structure in ^{199}Hg"*
Soumik Bhattacharya, S. Bhattacharyya, S. Das Gupta, R. Banik, G. Mukherjee, A. Dhal, S. Nandi, Md. A. Asgar, T. Roy, R. Raut, S. S. Ghugre, S. K. Das, S. Chatterjee, S. Samanta, Shabir Dar, A. Goswami, Sajad Ali, S. Mukhopadhyay, Debasish Mondal, **S. S. Alam**, T. Bhattacharjee, A. Saha, Deepak Pandit, Surajit Pal, S. R. Banerjee, S. Rajbanshi. Proceedings of the DAE Symposium on Nuclear Physics **64** (2019) 276.

32. *''Lifetime measurements in neutron rich ^{129}Sn and ^{130,132}Te"*
Devesh Kumar, T. Bhattacharjee, L. Gerhard, L. Knafla, A.

Esmaylzadeh, F. Dunkel, K. Schonaker, J. -M. Regis, **S.S. Alam**, S. Basak, D. Banerjee, Y.H. Kim, U. Koster, M. Saha Sarkar. Proceedings of the DAE Symposium on Nuclear Physics **64** (2019) 280.

33. *''Lifetime measurement in N = 88 Sm using VENTURE array''*
Shefali Basak, **S. S. Alam**, D. Kumar, A. Saha, D. Banerjee, T. Bhattacharjee. Proceedings of the DAE Symposium on Nuclear Physics **64** (2019) 282.

34. *''Precise measurement of decay half lives of n-rich iodine isotopes after radiochemical separation''*
D. Banerjee, D. Kumar, T. Bhattacharjee, S. Basak, **S.S. Alam**. Proceedings of the DAE Symposium on Nuclear Physics **64** (2019) 286.