

Syed Ahsan Ali Bokhari
Research Engineer

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May, 2010 – Present, Key Responsibilities

- Installation, provisioning, configuration and maintenance of computer clusters/servers, storage and software of the atmospheric modelling centre.
- Day-to-day operations of HPC systems including systems administration, monitoring and performance optimization.
- Installation and maintenance of system software stack and tools, building and deploying open source software and supporting scientific applications.
- Porting and scaling of numerical models, profiling, performance optimizations, and testing within the HPC environment by improving the portability, scalability, data handling, and overall performance of the system.
- Conduct atmospheric simulations using models such as meso-scale meteorological models and regional climate models and develop approaches to handle and analyze the data avalanches produced by kilometer scale simulations
- Conduct postprocessing, performance evaluations, archival and dissemination, and use of the resulting weather and climate products.
- Implement international and national projects on integrated modeling of climate, agriculture, water, and other issues.
- Participate in capacity building and outreach activities both locally and abroad.
- Participate in the writing of assessment reports, project reporting, proposal writing, and other documents.

Education:

M.Sc Climate Change Science and Policy

(with distinction and outstanding research award)

2015-2016 University of Bristol, United Kingdom

Master's Dissertation:

“Future Climate Change and the Suitability of Sites for Onshore and offshore Wind-Farms in the United Kingdom” partnership project with Garrad Hassan & Partners Limited (DNV GL).

BS in Electronic Engineering CGPA 3.22/4, 73.67%

2004–2008 International Islamic University, Islamabad, Pakistan.

Awards:

- Best poster award titled “*Response of South Asian Regional Climate to atmospheric aerosols in RegCM4*” under theme *Aerosols perturbations on climate* in Sao Paulo School of Advanced Science on Atmospheric Aerosols during 22 July 2019 to 2 August 2019 at University of Sao Paulo (USP), Brazil.
 - Outstanding Research Performance Prize 2015/16 awarded by University of Bristol, UK.
 - Received Commonwealth Scholarship funded by UK DFID for studying Masters in Climate Change Science and Policy at University of Bristol, United Kingdom.
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Publications and Proceedings:

- Muhammad Usman, Burhan Ahmad, **Syed Ahsan Ali Bokhari**. Assessment of inter-seasonal, inter-annual and intra-annual variability in snow and rainfall recharged fresh water discharge under IPCC AR5 based climate change scenarios: A case study of Soan river basin, Potowar region, Pakistan. *Climate Change*, 2019, 5(20), 264-326.
- Muhammad Zia ur Rahman Hashmi ; Amjad Masood ; Haris Mushtaq ; **Syed Ahsan Ali Bokhari** ; Burhan Ahmad ; Adnan Ahmad Tahir (2019). Exploring climate change impacts during the first half of the 21st century on flow regime of the transboundary Kabul River in the Hindukush region. *Journal of Water and Climate Change* jwc2019094. <https://doi.org/10.2166/wcc.2019.094>
- **Bokhari, S.**, Ahmad, B., Ali, J., Ahmad, S., Mushtaq, H. and Rasul, G. (2018). Future Climate Change Projections of the Kabul River Basin Using a Multi-model Ensemble of High-Resolution Statistically Downscaled Data. *Earth Systems and Environment*, 2(3), pp.477-497. <https://link.springer.com/article/10.1007/s41748-018-0061-y>
- Ali, J., Syed, K., Gabriel, H., Saeed, F., Ahmad, B. and **Bukhari, S.** (2018). Centennial Heat Wave Projections Over Pakistan Using Ensemble NEX GDDP Data Set. *Earth Systems and Environment*, 2(3), pp.437-454. <https://link.springer.com/article/10.1007/s41748-018-0064-8>
- A. Burhan, G. Rasul, T. Qadir, S. Hussain, M. Saqib, **S.A.A. Bukhari**. Environmental policies to protect pollinators: attributes and actions needed to avert climate borne crisis of oil seed agriculture in Pakistan. *AIMS Agriculture and Food*, 2017, 2(3): 233-250. doi: 10.3934/agrfood.2017.3.233.
- **Bokhari, S. A. A.**, G. Rasul, A. C. Ruane, G. Hoogenboom, A. Ahmad. The Past and Future Changes in Climate of the Rice-Wheat Cropping Zone in Punjab, Pakistan. *Pakistan Journal of Meteorology* Vol. 13, Issue 26: Jan, 2017.
- Ikram, F, **S. A. A. Bukhari**, M. Afzaal, B. Ahmed (2016). *Past and Future Trends in Frequenc of Heavy Rainfall Events over Pakistan*. *Pakistan Journal of Meteorology*, Vol 12, Issue 24.
- Ahmad, A., M. Ashfaq, G. Rasul, S.A. Wajid, T. Khaliq, F. Rasul, U. Saeed, M. Habib ur Rahman, J. Hussain, I.A. Baig, S.A.A. Naqvi, **S.A.A. Bokhari**, S. Ahmad, W. Naseem, G. Hoogenboom, and R.O. Valdivia (2015). "Chapter 7. Impact of Climate Change on the Rice-Wheat Cropping System of Pakistan", in Rosenzweig, C. and Hillel, D. (eds.) *Handbook of Climate Change and Agroecosystems: The Agricultural Model Intercomparison and Improvement Project*, Part 2. Imperial College Press, London. pp. 219-258. doi:0.1142/9781783265640_0019.
- Ali, G. , T. Mahmood, W. Iqbal, **S. A. A. Bukhari**, F. S. Syed, G. Rasul (2014) *Heavy Rainfall Forecast by High Resolution Regional Model (HRM) and its Validation over Pakistan*; *Pakistan Journal of Meteorology*, Vol 11, Issue 21.
- Burhan A, Waheed I, **Syed AAB**, Rasul G, Shreshtha AB, et al. (2015) Generation of High-Resolution Gridded Climate Fields for the Upper Indus River Basin by Downscaling CMIP5 Outputs. *J Earth Sci Clim Change* 6: 254. doi:10.4172/2157-7617.1000254.
- "Uncertainties in the regional climate models simulations of South-Asian summer monsoon and climate change", F.S. Syed, W. Iqbal, **A. Bukhari** and G. Rasul. *Climate Dynamics* Volume 42, Issue 7-8, pp 2079-2097 DOI 10.1007/s00382-013-1963-x.