

**PROFORMA FOR BIO-DATA OF TIH TEAM MEMBERS/
COLLABORATORS**

1. Name: Dr. Saurabh Das
2. Designation: Assistant Professor
3. Department: Discipline of Astronomy, Astrophysics and Space Engineering
4. Institution: Indian Institute of Technology, Indore
5. Contact Number: +917312438870 (Office); +918016506226 (Mob.)
6. Email: saurabh.das@iiti.ac.in ; das.saurabh01@gmail.com
7. Date of Birth: 14/07/1983
8. Gender: Male
9. Academic Qualification: (Undergraduate Onwards)

S.No.	Degree	Year	Subject	University/Institution	% of Marks
1.	Ph. D (Tech.)	2013	Radio physics and Electronics	University of Calcutta	NA
2.	M.Sc.	2006	Physics	IIT Roorkee	8.19 (CGPA)
3.	B.Sc.	2004	Physics (H)	University of Burdwan	64.63%

10. Ph.D. Thesis Title : Study on effect of rain on signal propagation and rain related parameters for different Zones of Indian region
 Guide Name : Prof. Animesh Maitra
 Institution : University of Calcutta
 Year of Award : 2013

11. Work Experience (in chronological order)

S.No.	Position held	Institution	From	To	Pay Scale
1.	Assistant Professor	IIT Indore	Mar. 2019	Till Date	Payband 12
2.	DST INSPIRE Faculty	IIT Indore	July 2018	March 2019	1.25 Lakh

3.	DST INSPIRE Faculty	ISI Kolkata	April 2015	July 2018	87000
4.	Assistant Professor	University of Calcutta	October 2009	March 2015	Payband 3
5.	Junior research fellow	Space Applications Centre, ISRO	September 2006	October 2009	14000

12. Professional Recognition/ Award/ Prize/ Certificate/ Fellowship received by the member

S.No.	Name of Award	Awarding Agency	Year
1.	Best paper award	National Space Sciences Symposium (NSSS-2019)	2019
2.	IEEE Senior Member	IEEE	2018
3.	Young Scientist Award	URSI Asia-Pacific Radio Science	2016
4.	DST-INSPIRE Faculty Award	Department of Science and Technology, Govt. of India	2015
5.	Young Scientist Award	International Union of Radio Science (URSI) GASS	2014
6.	First prize in 'Young Scientist award competition'	Indian committee of URSI in Regional conference in Radio Science (RCRS)	2014
7.	Best paper award	ICMARS 2010	2010
8.	"CSIR-NET LS" in Physics	CSIR	2005

13. Publications (List of papers published in SCI Journals, in year wise descending order).

S.No.	Authors	Title	Journal	Volum-e	Page	Year
1.	S. Chakraborty, M. Chakraborty and S. Das	Experimental studies of slant-path rain attenuation over tropical and equatorial regions-A Brief Review	IEEE Antennas and Propagation Magazine	In Press		2020
2.	S. Das , S. Datta and A. K. Shukla	Detection of Thunderstorm Using Indian Navigation Satellite NavIC	IEEE Transactions on Geoscience and Remote Sensing	In press		2020
3	S. Bandyopadhyay, S. Das and A. Datta	Fuzzy Energy-Based Dual Contours Model for Automated Coronal Hole Detection in SDO/AIA Solar Disk Images	Advances in Space Research	In press		2020
4.	D. Ayyagari, S. Chakraborty, S. Das , A. Shukla, A. Paul and A. Datta	Performance of NavIC for studying the ionosphere at an EIA region in India	Advances in Space Research	In press		2020
5.	S. Bandopadhyay , S. Das and A. Datta	A Hybrid Fuzzy Filtering - Fuzzy Thresholding Technique for Region of Interest Detection in Noisy Images	Applied Intelligence	In press		2019
6.	S. Das and A. R. Jameson	Site Diversity Prediction at a Tropical Location from a Single Site Rain Measurements using a Bayesian Technique	Radio Science	23(6)	830-844	2018

7.	S. Das and C. Chatterjee	Rain characterization based on maritime and continental origin at a tropical location	Journal of Atmospheric and Solar-Terrestrial Physics	173	109-118	2018
8.	S. Das and A. Maitra	Characterization of tropical precipitation using drop size distribution and rain rate-radar reflectivity relation	Theoretical and Applied Climatology	132(1-2)	275-286	2018
9.	S. Das , R. Chakraborty and A. Maitra	A random forest algorithm for nowcasting of intense precipitation events	Advances in Space Research	60(6)	1271-1282	2017
10.	S. Das and D. Ghosh	Dependency of rain integral parameters on specific rain drop sizes and its seasonal behaviour	Journal of Atmospheric and Solar-Terrestrial Physics	149	15-20	2016
11.	S. Das and A. Maitra	Vertical Profile of Rain: Ka band radar observations	Journal of Hydrology	534	31-41	2016
		at tropical locations				
12.	R. Chakraborty, S. Das and A. Maitra	Prediction of Convective Events using Multi-frequency Radiometric Observations at Kolkata	Atmospheric Research	169(Part A)	24-31	2016

13.	S. Majumder, S. Das and A. Maitra	Study of tropospheric delay over Indian region from MODIS, NCEP/NCAR data and ground based water vapor measurements at Kolkata	Advances in Space Research,	56(6)	1115–1124	2016
14.	T. Sarkar, S. Das and A. Maitra	Assessment of different raindrop size measuring techniques: Inter-comparison of Doppler radar, impact and optical disdrometer	Atmospheric Research	160	15-27	2015
15.	T. Sarkar, S. Das and A. Maitra	Effects of melting layer on Ku-band signal depolarization	Journal of Atmospheric and Solar-Terrestrial Physics	117	95-100	2014
16.	R. Chakraborty, S. Das , S. Jana and A. Maitra	Nowcasting of rain events using multi-frequency radiometric observations	Journal of Hydrology	513	467–474	2014
17.	S. Das , S. Majumder, R. Chakraborty	A Simplistic Approach for Water Vapor	IET Radar, Sonar & Navigation	8(8)	845-852	2014
	and A. Maitra	Sensing Using a Stand Alone GPS Receiver				
18.	S. Das , S. Chakraborty and A. Maitra	Radiometric measurements of cloud attenuation at a tropical location in India	Journal of Atmospheric and Solar-Terrestrial Physics	105	97-100	2013

19.	S. Das , A. Maitra and A. K. Shukla	Diurnal variation of Slant Path Ka- band Rain Attenuation at Four Tropical Locations in India	Indian Journal of Radio and Space Physics	42	34-41	2013
20.	A. K Shukla, S. Das , A P Shukla and V S Palsule	Approach for Near- Real-Time Prediction of Ionospheric Delay using Klobuchar-like Coefficients for Indian Region	IET Radar, Sonar & Navigation	7(1)	67-74	2012
21.	A. Adhikari, S. Das , A. Bhattacharya and A. Maitra	Improving Rain Attenuation Estimation: Modelling of Effective Path Length Using Ku-Band Measurements at A Tropical Location	Progress in Electromagnetic Research B	34	173-186	2011.
22.	S. Das , A. Maitra and A. K. Shukla	Melting layer characteristic	Atmospheric Research	101(1-2)	78-83	2011
		s at different climatic conditions in the Indian region: ground based measurements and satellite observations				

23.	S. Das , A. Maitra and A. K. Shukla	Rain Attenuation Modeling In The 10-100 GHz Frequency Using Drop Size Distributions For Different Climatic Zones In Tropical India	Progress In Electromagnetics Research B	25	211-224	2010
24.	A. K. Shukla, S. Das , P.V. Khekale, M R Sivaraman and K. Bandyopadhyay	Effect of Grid Size Variation on the Interpolation of Total Electron Content over Indian Region	Journal of Navigation	57(2)	115-122	2010
25.	S. Das , A K Shukla and A. Maitra	Investigation of vertical profile of rain microstructure at Ahmedabad in Indian tropical region	Advances in Space Research	45(10)	1235-1243	2010
26.	A. Maitra, S. Das and A. K. Shukla	Joint statistics of rain rate and event duration for a	Indian Journal of Radio and Space Physics	38	253-260	2009
		tropical location in India				
27.	A. K. Shukla, B. Roy, S. Das , A. R. Charania, K. S. Kavaia, K. Bandyopadhyay and K. S. Dasgupta	Micro rain cell measurements in tropical India for site diversity fade mitigation estimation	Radio Science	45	RS1002	2010

28.	A. K. Shukla, S. Das , N. Nagori, M. R. Sivaraman and K. Bandyopadhyay	Two-Shell Ionospheric Model for Indian Region: A Novel Approach	IEEE Transactions on Geoscience and Remote Sensing	47(8)	240	2009
29.	A. K. Shukla, N. Nagori, S. Das , N. Jain, M. R. Sivaraman and K. Bandyopadhyay	Statistical Comparison of Various Interpolation Algorithms for Grid-Based Single Shell Ionospheric Model over Indian Region	Journal of Global Positioning Systems	7(1)	72-79	2008

14. Detail of Patents: Nil

S.No.	Patent Title	Name of Applicant(s)	Patent No.	Award Date	Agency/ Country	Status

15. Books/Reports/Chapters/General articles etc. : Nil

S.No.	Title	Publisher	Year of Publication

16. List of Projects implemented

16.1 Details of Projects in progress

S.No.	Title	Cost in Lakh	Duration	Role (PI/Co-PI)	Agency
1.	Retrieval of atmospheric water vapor from NavIC/GAN data and prediction of extreme weather events based on machine learning techniques	43.92	3	PI	ISRO
2.	Integrated studies of cloud-aerosol-precipitation system in the Indian region in a climate change scenario	35	5	PI	DST-INSPIRE
3.	Real time Monitoring and Assessment of Dynamic Changes of Shako Chao Lake in Eastern Himalaya	US \$ 6000	1	Co-PI	IEEE-GRSS
4.	Experimental studies on tropospheric	17.65	2	Co-PI	SAC-ISRO

	scintillation and associated rain attenuation for SATCOM links over North Eastern India (Sikkim) at Ku/Ka-Band				
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16.2 Details of Projects completed

S.No.	Title	Cost in Lakh	Duration	Role (PI/Co-PI)	Agency
1.	Rain attenuation studies in relation to satellite communication	1	1	PI	TEQIP Phase II
2.	Studies on Aerosol Environment at Kolkata Located Near the Land-Ocean Boundary as a part of ARFI Network under ISRO-GBP	24.08	3	Co-PI	SPL-ISRO
3.	Integrated Studies on Water Vapour, Liquid Water Content	14.3	3	Co-PI	ISRO

	and Rain of the Tropical Atmosphere and Their Effects on Radio Environment				
4.	Ku/Ka band channel modeling for SATCOM links over Indian Region	11.62	2	Co-PI	ISRO/RESPOND

17. Any other relevant Information (maximum 500 words) : NA