Dr. Damu Bala Subrahamanyam
Scientist/Engineer – SG, and Head, NAM Branch, SPL
Phone: +91-471-2563734
Email: db_subrahamanyam[at]vssc[dot]gov[dot]in

RESEARCH AREA:

Boundary-layer Meteorology, Regional Atmospheric Modelling, Numerical Weather Predictions, Large Eddy Simulations, Tropical Cyclones, Air-Sea Interaction Processes, Data Assimilation, Parametrization, Atmospheric Boundary Layer, Artificial Intelligence and Machine Learning

ACADEMIC QUALIFICATIONS:

DEGREE	YEAR	DETAILS
Ph.D.	2004	Physics (Under the Faculty of Sciences) Title of Ph.D. thesis: "Observational and Modelling Studies of the Marine atmospheric boundary layer over the Tropical Indian Ocean during INDOEX" Mahatma Gandhi University, Kottayam, India Thesis Supervisor: Dr. Radhika Ramachandran
M.Sc.	1996	Physics (Specialization in Electronics) Pt. Ravishankar Shukla University, Raipur, India
B.Sc.	1994	Physics (Specialization in Electronics) Pt. Ravishankar Shukla University, Raipur, India

PROFESSIONAL BACKGROUND:

DESIGNATION	DURATION	INSTITUTION
Head, NAM Branch	2022 – Present	Numerical Atmosphere Modelling (NAM) Branch, Space Physics Laboratory, VSSC, Thiruvananthapuram
Scientist	2006 - Present	Space Physics Laboratory, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, India
Invited Scientist	2005 – 2006	Korea Ocean Research and Development Institute, Ansan, Republic of Korea
Project Scientist - C	2003 – 2005	Indian National Centre for Ocean Information Services, Ministry of Earth Sciences, Hyderabad, India
Research Associate	2003 – 2003	Space Physics Laboratory, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, India
ISRO Research Fellow	1998 – 2003	Space Physics Laboratory, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, India
Assistant Professor (on adhoc basis)	1996 – 1998	Govt. Arts and Science College, Durg Affiliated to Pt. Ravishankar Shukla University, Raipur, India

AWARDS / HONOURS / RECOGNITION / ACCLAMATION:

MENTOR (Project 'Mausam' of DTDi, Benguluru)	Project "Mausam" for Weather Prediction at SHAR using Artificial Intelligence (AI) and Machine Learning
MEMBER	Inter-Centre Weather Forecast Expert Team for PSLV/GSLV missions (2008-Present)
LEAD GUEST EDITOR (Advances in Meteorology)	Special Issue on "Atmospheric Boundary-Layer Processes and Atmospheric Modelling" (2015)
BEST LIBRARY USER (2019)	Best Library User award of VSSC / IISU for 2019
COMPLIMENTARY MEMBER (2015)	European Geoscience Union
COSPAR ASSOCIATE	COSPAR – Committee on Space Research
BEST RESEARCH PAPER (TROPMET – 2011)	"Short-Range Weather Predictions in support of PSLV and GSLV Launch activities: Role of High-resolution Regional Model", by: D. Bala Subrahamanyam and T. J. Anurose

FIRST PRIZE IN GAGAN (VSSC HINDI JOURNAL) FOR BEST ARTICLE:

Vol. 48 (Oct 2018 - Mar 2019):
Kya Zindagi men Unnayan zaroori hai?
Vol. 46 (Oct 2017 - Mar 2018):
Aaj ke sandarbh me Gurukul kii 5 preranadayak baaten
Vol. 43 (Apr 2016 - Sep 2016)
DPC Kaa Bhoot
Vol. 41 (Apr 2015 - Sep 2015)
Samay Ke Saath Badalate Rishte
Vol. 39 (Oct 2013 - Mar 2014)
Saadhe Chaar Sau Ka Rishta
Vol. 38 (Apr 2014 - Sep 2014)
Ek Asantulit Samaaz
Vol. 36 (Jun 2012 - Dec 2012)
Ek Avismaraniiy Mulakaat

ADDITIONAL MAJOR RESPONSIBILITIES:

Chair	SPL Website Development and Maintenance Team: (2008 - 2021)
Co-Cordinator	Official Language Implementation at SPL: (2018 – 2021)
Member	Editorial Board - Pramochan (Quarterly Bi-lingual magazine of VSSC): (2020 – Present)
Member	Digital India Week Celebrations at VSSC (2018 – Present)
Member	World Space Week (WSW) Celebrations (2012 – 2019)

RESEARCH SUPERVISION (Doctoral):

Roshny S.	Ph.D. (2022)	"Representation of Atmospheric Boundary Layer and Convective Processes in RANS and LES Models" Cochin University of Science and Technology, Cochin
Freddy P. Paul	Ph.D. (2021)	"Studies on Tropical Cyclones over the Bay of Bengal and the Arabian Sea using the Regional Numerical Weather Prediction Model COSMO" Cochin University of Science and Technology, Cochin
T. J. Anurose	Ph.D. (2015)	"Investigation of Atmospheric Boundary Layer Characteristics over the Tropics through Numerical Weather Prediction Models" University of Kerala, Thiruvananthapuram

RESEARCH SUPERVISION (Post-Graduation):

Veena Raveendran	M.Sc. (2019)	St. Stephens College, Pathanapuram.
Parvathy K. S.	M.Sc. (2019)	St. Stephens College, Pathanapuram.
Neenu Vincent	M.Sc. (2018)	M. A. M. O. College, Mukkam.
Shemitha M. A.	M.Sc. (2018)	Al Ameen College, Edathala.
Sreelakshmi T. M.	M.Tech. (2017)	National Institute of Technology, Warangal.
Charrulakshmi P.	M.Sc. (2016)	Amrita Vishwa Vidyapeetham, Kollam.
Shine Raj B. B.	M.Sc. (2011)	Christian College, Kattakada.
Rakesh S. V.	M.Sc. (2011)	Christian College, Kattakada.
Priya Suresh	M.Sc. (2008)	C. M. S. College, Kottayam.
Anju M. V.	M.Sc. (2007)	Christian College, Kattakada.
Roshna S. H.	M.Sc. (2007)	Christian College, Kattakada.
K. Manoj Rajan	M.Sc. (2006)	S. D. College, Allepey.

LIST OF PUBLICATIONS IN BOOKS, JOURNALS AND CONFERENCE PROCEEDINGS:

Books:

1 **D. Bala Subrahamanyam** and Radhika Ramachandran, "Marine Atmospheric Boundary Layer Studies during INDOEX:Observational and Modelling Studies of the Marine Atmospheric Boundary Layer over the Tropical Indian Ocean during INDOEX", Archive No.: V177160; ISBN (eBook): 978-3-640-98865-5; ISBN (Book): 978-3-640-98891-4, 2011.

2 S. Indira Rani, Radhika Ramachandran and **D. Bala Subrahamanyam**, "Atmospheric Modelling Studies over India through HRM and ARPS Models: Studies on Lower Atmospheric Processes over South India using Numerical Atmospheric Models and Experiments", Archive No.: V178406; ISBN (eBook): 978-3-656-00569-8; ISBN (Book): 978-3-656-00584-1, 2011.

Invited Chapters in Books:

3 **D. Bala Subrahamanyam** and Radhika Ramachandran, "Applications of Mesoscale Atmospheric Models in Short-Range Weather Predictions during Satellite Launch Campaigns in India", Chapter in Book titled "Atmospheric Model Applications" Edited by Ismail Yucel; Published by InTech, Janeza Trdine 9, 51000 Rijeka, Croatia. ISBN 978-953-51-0488-9, pp 25 - 42. 2012. [DOI : 10.5772/32518]

Editorial in Peer-Reviewed Journals:

4 **D. Bala Subrahamanyam**, Ismail Gultepe, Sultan Al-Yahyai, and A. N. V. Satyanarayana, "Atmospheric Boundary-Layer Processes and Atmospheric Modeling", Advances in Meteorology, Vol. 2015, Article ID 985353, 2 pages, 2015. [DOI : 10.1155/2015/985353]

Publications in Peer-Reviewed Journals:

5 Roshny S. and **D. Bala Subrahamanyam**, "Do the large-eddy simulations yield deeper atmospheric boundary layers in comparison to the RANS model simulations?", Journal of Atmospheric and Solar-Terrestrial Physics 240: 105954, 2022.
[DOI: 10.1016/j.jastp.2022.105954]

6 Freddy P. Paul, Roshny S., Anurose T. J., **D. Bala Subrahamanyam** and Radhika Ramachandran, "Numerical simulation of sea-breeze circulation over the Arabian Sea during the passage of a cyclonic storm OCKHI using a regional atmospheric model COSMO", Dynamics of Atmospheres and Oceans, 96: 101265, 2021.
[DOI: 10.1016/j.dynatmoce.2021.101265]

7 K. V. Subrahmanyam, C. Ramsenthil, A. Girach Imran, A. Chakravorty, R. Sreedhar, E. Ezhilrajan, **D. Bala Subrahamanyam**, Radhika Ramachandran, K. K. Kumar, M. Rajasekhar and C. S. Jha, "Prediction of heavy rainfall days over a peninsular Indian station using the machine learning algorithms''. Journal of Earth System Science 130: 240, 2021.
[DOI: 10.1007/s12040-021-01725-9]

8 Freddy P. Paul and **D. Bala Subrahamanyam**, "Prediction of tropical cyclone trajectories over the Northern Indian Ocean using COSMO. Meteorology and Atmospheric Physics 133: 789 – 802, 2021.
[DOI: 10.1007/s00703-021-00782-5]

9 **D. Bala Subrahamanyam**, Roshny S., Freddy P. Paul, Anurose T. J., and Radhika Ramachandran, "Impact of a very severe cyclonic storm OCKHI on the vertical structure of marine atmospheric boundary layer over the Arabian Sea", Bulletin of Atmospheric Science and Technology 1: 407 – 431, 2020.
[DOI : 10.1007/s42665-020-00020-7].

10 Roshny, S., **D. Bala Subrahamanyam**, T. J. Anruose and Radhika Ramachandran, "An Assessment of a Very Severe Cyclonic Storm in the Arabian Sea using the COSMO Model", SN Applied Sciences 2: 1869, 2020. [DOI : 10.1007/s42452-020–3645-7]

Publications in Peer-Reviewed Journals (Continued ...):

11 **D. Bala Subrahamanyam**, Radhika Ramachandran, K. Nalini, Freddy P. Paul and S. Roshny, "Performance Evaluation of COSMO Numerical Weather Prediction Model in Prediction of OCKHI – One of the Rarest Very Severe Cyclonic Storms over the Arabian Sea: A Case Study", Natural Hazards 96: 431 - 459, 2019. [DOI : 10.1007/s11069-018-3550-2]

12 T. J. Anurose, **D. Bala Subrahamanyam** and S. V. Sunilkumar, "Two years observations on the diurnal evolution of coastal atmospheric boundary layer features over Thiruvananthapuram (8.5°N, 76.9°E), India", Theoretical and Applied Climatology 131: 77 - 90, 2018. [DOI : 10.1007/s00704-016-1955-y]

13 Jyoti Bhate, Amit P. Kesarkar, Anandakumar Karipot, **D. Bala Subrahamanyam**, M. Rajasekhar, V. Sathiyamoorthy and C.M. Kishtawal, "A sea breeze induced thunderstorm over an inland station over Indian South Peninsula - A case study", Journal of Atmospheric and Solar-Terrestrial Physics 148: 96 - 111, 2016. [DOI : 10.1016/j.jastp.2016.09.002]

14 T. J. Anurose and **D. Bala Subrahamanyam**, "Evaluation of ABL parametrization schemes in the COSMO, a regional non-hydrostatic atmospheric model over an inhomogeneous environment", Modeling Earth Systems and Environment 1(4):1 - 13, 2015. [DOI : 10.1007/s40808-015-0045-y]

15 Sandhya K. Nair, Thara V. Prabha, N. Purushothaman, S. Sijikumar, S. Muralidharan, N. V.Kirankumar, **D. B. Subrahamanyam**, T. J. Anurose, S. S. Prijith and K.V. S. Namboodiri, "Diurnal variations of the low-level jet over peninsular India during the onset of Asian summer monsoon", Theoretical and Applied Climatology 120(1): 287 - 298, 2015. [DOI : 10.1007/s00704-014-1168-1]

16 T. J. Anurose and **D. Bala Subrahamanyam**, "Assessment of a surface-layer parameterization scheme in an atmospheric model for varying meteorological conditions", Annales Geophysicae 32: 669 - 675, 2014. [DOI : 10.5194/angeo-32-669-2014]

17 T. J. Anurose and **D. Bala Subrahamanyam**, "Improvements in Sensible Heat-Flux Parametrization in the High-Resolution Regional Model (HRM) Through the Modified Treatment of the Roughness Length for Heat", Boundary-Layer Meteorology 147(3): 569 - 578, 2013. [DOI : 10.1007/s10546-013-9799-9]

18 T. J. Anurose, **D. Bala Subrahamanyam**, C. B. S. Dutt, N. V. P. Kiran Kumar, Sherine Rachel John, Sandhya K. Nair, M. Santosh, Mannil Mohan, P. K. Kunhikrishnan, S. Sijikumar and S. S. Prijith, "Vertical Structure of Sea-Breeze Circulation over Thumba (8.5°N, 76.9°E, India) in the Winter Months and A Case Study during W-ICARB Field Experiment", Meteorology and Atmospheric Physics, 115(3): 113 - 121, 2012. [DOI : 10.1007/s00703-011-0178-0]

19 **D. Bala Subrahamanyam**, T. J. Anurose, N. V. P. Kiran Kumar, Mannil Mohan, P. K. Kunhikrishnan, Sherine Rachel John, S. S. Prijith and C. B. S. Dutt, "Spatial and Temporal Variability in Vertical Structure of the Marine Atmospheric Boundary Layer over Bay of Bengal during Winter Phase of Integrated Campaign for Aerosols, gases and Radiation Budget", Atmospheric Research 107: 178185, 2012. [DOI : 10.1016/j.atmosres.2011.12.014]

20 **D. Bala Subrahamanyam**, Radhika Ramachandran, S. Indira Rani, S. Sijikumar, T. J. Anurose and Asish Kumar Ghosh, "Location-specific weather predictions for Sriharikota (13.72°N, 80.22°E) through numerical atmospheric models during satellite launch campaigns", Natural Hazards 61(3): 893 - 910, 2012. [DOI : 10.1007/s11069-011-9942-1]

21 S. N. Beegum, K. K. Moorthy, **D. Bala Subrahamanyam**, N. V. P. K. Kumar, S. Suresh Babu and M.Mohan, "Short period variations of the aerosol mass concentrations over Bay of Bengal: Association with quasi-periodic variations in the Marine Atmospheric Boundary Layer parameters and fluxes", Journal of Atmospheric and Solar-Terrestrial Physics, 77: 78 - 84, 2012. [DOI : 10.1016/j.jastp.2011.11.012]

22 **D. Bala Subrahamanyam**, T. J. Anurose, Mannil Mohan, M. Santosh, N. V. P. Kiran Kumar and S. Sijikumar, "Impact of Annular Solar Eclipse of 15 January 2010 on Atmospheric Boundary Layer Characterization over Thumba: A Case Study", Pure and Applied Geophysics 169(4): 741 – 753, 2012. [DOI : 10.1007/s00024-011-0336-9]

23 S. Srivastava, S. Lal, S. Venkataramani, I. Guha and **D. Bala Subrahamanyam**, "Airborne measurements of O3 , CO, CH4 and NMHCs over the Bay of Bengal during winter", Atmospheric Environment 59: 597 - 609, 2012. [DOI : 10.1016/j.atmosenv.2012.04.054]

Publications in Peer-Reviewed Journals (Continued ...):

24 **D. Bala Subrahamanyam**, T. J. Anurose, Mannil Mohan, M. Santosh, N. V. P. Kiran Kumar, S. Sijikumar, S. S. Prijith and Marina Aloysius, "Atmospheric Surface-Layer Response to the Annular Solar Eclipse of 15 January 2010 over Thiruvananthapuram, India", Boundary-Layer Meteorology 141(2): 325 - 332, 2011. [DOI : 10.1007/s10546-011-9627-z]

25 **D. Bala Subrahamanyam** and T. J. Anurose, "Solar Eclipse induced Impacts on Sea/Land Breeze Circulation over Thumba: A Case Study", Journal of Atmospheric and Solar-Terrestrial Physics 73(5-6): 703 - 708, 2011. [DOI : 10.1016/j.jastp.2011.01.002]

26 **D. Bala Subrahamanyam**, N. V. P. Kiran Kumar, C. B. S. Dutt, T. J. Anurose, P. K. Kunhikrishnan and Mannil Mohan, "Characterization of Air-Sea Interaction Processes over the Bay of Bengal during the Winter Phase of Integrated Campaign for Aerosols, gases and Radiation Budget (W-ICARB) Field Experiment", Atmospheric Research 99(1): 97 - 111, 2011. [DOI : 10.1016/j.atmosres.2010.09.005]

27 Sandhya K. Nair, T. J. Anurose, **D. Bala Subrahamanyam**, N. V. P. Kiran Kumar, M. Santosh, S. Sijikumar, Mannil Mohan and K. V. S. Namboodiri, "Characterization of the Vertical Structure of the Coastal Atmospheric Boundary Layer (CABL) over Thumba (8.5°N, 76.9°E) during different seasons", Advances in Meteorology Volume 2011, Article ID 390826, 9 pages, 2011. [DOI : 10.1155/2011/390826]

28 S. Suresh Babu, V. Sreekanth, K. Krishna Moorthy, Mannil Mohan, N. V. P. Kiran Kumar, **D. Bala Subrahamanyam**, Mukunda M. Gogoi, Sobhan Kumar Kompalli, Naseema Beegum, Jai Prakash Chaubey, V. H. Arun Kumar and Ravi K. Manchanda, "Vertical profiles of aerosol black carbon in the atmospheric boundary layer over a tropical coastal station: Perturbations during an annular solar eclipse", Atmospheric Research 99(3-4): 471 - 478, 2011. [DOI : 10.1016/j.atmosres.2010.11.019]

29 S. Indira Rani, Radhika Ramachandran, **D. Bala Subrahamanyam**, P. K. Kunhikrishnan and Denny P. Alappattu, "Characterization of Sea/Land Breeze circulation along the west coast of Indian sub-continent during pre-monsoon", Atmospheric Research 95: 367 - 378, 2010. [DOI : 10.1016/j.atmosres.2009.10.009]

30 Shuchita Srivastava, S. Lal, **D. Bala Subrahamanyam**, S. Gupta, S. Venkataramani and T. A. Rajesh, "Seasonal Variability in mixed layer heights and its impact on trace gas distribution overtropical urban site: Ahmedabad", Atmospheric Research 96:79 - 87, 2010. [DOI : 10.1016/j.atmosres.2009.11.015]

31 **D. Bala Subrahamanyam**, S. Indira Rani, Radhika Ramachandran, P. K. Kunhikrishnan and B. Prasad Kumar, "Impact of wind speed and atmospheric stability on air-sea interface fluxes over the East Asian Marginal Seas", Atmospheric Research 94(1): 81 - 90, 2009. [DOI : 10.1016/j.atmosres.2008.09.011]

32 R. Rajesh Kumar, B. Prasad Kumar and **D. Bala Subrahamanyam**, "Parameterization of Rain Induced Surface Roughness and Its Validation Study Using a Third Generation Wave Model", Ocean Science Journal 44(3), 125 - 143, 2009. [DOI : 10.1007/s12601-009-0012-5]

33 R. Rajesh Kumar, B. Prasad Kumar, A. N. V. Satyanarayana, **D. Bala Subrahamanyam**, A. D. Rao and S. K. Dube, "Effect of varied atmospheric stability on sea surface drag in shallow seas and its impact on wind-wave growth", Natural Hazards 49(2): 213 - 224, 2009. [DOI : 10.1007/s11069-008-9279-6]

34 R. Rajesh Kumar, B. Prasad Kumar, A. N. V. Satyanarayana, **D. Bala Subrahamanyam**, A. D. Rao and S. K. Dube, "Parameterization of sea surface drag under varying sea state and its dependence of wave age", Natural Hazards 49(2): 187 - 197, 2009. [DOI : 10.1007/s11069-008-9309-4]

35 **D. Bala Subrahamanyam**, S. Indira Rani, Radhika Ramachandran and P. K. Kunhikrishnan, "Nudging of Vertical Profiles of Meteorological Parameters in One-Dimensional Atmospheric Model:Step Towards Improvements in Numerical Simulations", Ocean Science Journal 43(4): 165 – 173, 2008. [DOI : 10.1007/BF03029921]

36 R. Rajesh Kumar, B. Prasad Kumar, A. N. V. Satyanarayana, **D. Bala Subrahamanyam**, A. D. Rao and S. K. Dube, "Parameterization of sea surface drag under varying sea state and its dependence of wave age", Natural Hazards 49(2): 187 - 197, 2009. [DOI : 10.1007/s11069-008-9309-4]

37 **D. Bala Subrahamanyam**, S. Indira Rani, Radhika Ramachandran and P. K. Kunhikrishnan, "Nudging of Vertical Profiles of Meteorological Parameters in One-Dimensional Atmospheric Model:Step Towards Improvements in Numerical Simulations", Ocean Science Journal 43(4): 165 – 173, 2008. [DOI : 10.1007/BF03029921]

Publications in Peer-Reviewed Journals (Continued ...):

38 **D. Bala Subrahamanyam**, Radhika Ramachandran, S. Indira Rani, P. K. Kunhikrishnan and B. Prasad Kumar, "Intercomparison of Air-Sea Interface Fluxes over the Yellow Sea and Korea Strait: Impact of Tsushima Warm Ocean Current", Boundary-Layer Meteorology 127: 333 - 344, 2008. [DOI : 10.1007/s10546-007-9248-8]

39 R. Rajesh Kumar, A. Raturi, B. Prasad Kumar, Ashoke Bhar, **D. Bala Subrahamanyam** and Felix Jose, "Parameterization of wave attenuation in muddy beds and implication on coastal structures". Coastal Engineering Journal 50(3): 309 - 324, 2008. [DOI : 10.1142/S0578563408001843]

40 Denny P. Alappattu, **D. Bala Subrahamanyam**, P. K. Kunhikrishnan, Radhika Ramachandran, K. M. Somayaji, R. Venkatesh, G. S. Bhat, A. Bhagvath Singh, "Spatio-temporal Variability of Surface-layer Turbulent Fluxes Over the Bay of Bengal and Arabian Sea During the ICARB Field Experiment", Boundary-Layer Meteorology 126: 297 - 309, 2008. [DOI : 10.1007/s10546-007-9233-2]

41 Denny P. Alappattu, **D. Bala Subrahamanyam**, P. K. Kunhikrishnan, K. M. Somayaji, G. S. Bhat, R. Venkatesan, C. B. S. Dutt, A. Bhagavath Singh, V. K. Soni and A. S. Tripathi, "On the marine atmospheric boundary layer characteristics over Bay of Bengal and Arabian Sea during the Integrated Campaign for Aerosols, gases and Radiation Budget (ICARB)", Journal of Earth System Science 117(S1): 281 - 291, 2008. [DOI : 10.1007/s12040-008-0031-0]

42 **D. Bala Subrahamanyam**, Radhika Ramachandran, S. Indira Rani and B. Prasad Kumar, "Air-sea interaction processes over the east-asian marginal seas surrounding the Korean peninsula", Annales Geophysicae 25: 1477 - 1486, 2007. [DOI : 10.5194/ANGEO-25-1477-2007]

43 **D. Bala Subrahamanyam**, Radhika Ramachandran and P. K. Kunhikrishnan, "Improvements in Simulation of Atmospheric Boundary Layer Parameters through Data Assimilation in ARPS Mesoscale Atmospheric Model", In T. N. Krishnamurti, B. N. Goswami and Toshiki Iwasaki (ed): Remote Sensing and Modelling of Atmospheres, Oceans and Interactions, Proc. of SPIE Vol. 6404, 64040K, 2006. [DOI : 10.1117/12.694106]

44 P. K. Kunhikrishnan, Radhika Ramachandran, Denny P. Alappattu, N. V. P. Kiran Kumar, **D. Bala Subrahamanyam**, "A Case study of sea breeze circulation at Thumba coast through observations and modelling" In T. N. Krishnamurti, B. N. Goswami and Toshiki Iwasaki (ed): Remote Sensing and Modelling of Atmospheres, Oceans and Interactions, Proc. of SPIE Vol. 6404, 640417, 2006. [DOI: 10.1117/12.694125]

45 **D. Bala Subrahamanyam**, Radhika Ramachandran, S. Indira Rani, P. K. Kunhikrishnan and B. Prasad Kumar, "A Comparative Study of Air-Sea Exchange Coefficients and Turbulent fluxes over Indian Sub-continent and Korean Peninsula". In T. N. Krishnamurti, B. N. Goswami and Toshiki Iwasaki (ed): Remote Sensing and Modelling of Atmospheres, Oceans and Interactions, Proc. Of SPIE Vol. 6404, 640416, 2006. [DOI : 10.1117/12.694109]

46 Praveena Krishnan, P. K. Kunhikrishnan, S. M. Nair, Sudha Ravindran, Radhika Ramachandran, **D. Bala Subrahamanyam** and M. V. Ramana, "Observation of the Atmospheric surface layer parameters over a semi arid region during the solar eclipse of August 11th, 1999", Proceedings of the Indian Academy of Sciences - Earth and Planetary Sciences 113(3): 353 - 363, 2004. [DOI : 10.1007/BF02716730]

47 **D. Bala Subrahamanyam** and Radhika Ramachandran, "Wind Speed dependence of the air-sea exchange parameters over the Indian Ocean during INDOEX, IFP-99", Annales Geophysicae 21(7): 1667 - 1679, 2003. [DOI : 10.5194/ANGEO-21-1667-2003]

48 **D. Bala Subrahamanyam**, Radhika Ramachandran, K. Sen Gupta and T. K. Mandal, "Variability of Mixed Layer Heights over the Indian Ocean and Central Arabian Sea during INDOEX, IFP-99", Boundary Layer Meteorology 107(3): 683 - 695, 2003. [DOI : 10.1023/A:1022811512160]

49 **D. Bala Subrahamanyam** and Radhika Ramachandran, "Structural Characteristics of Marine Atmospheric Boundary Layer (MABL) and its associated dynamics over the Central Arabian Sea during INDOEX, IFP-99 Campaign", Current Science 85: 1334 - 1340, 2003.

50 **D. Bala Subrahamanyam** and Radhika Ramachandran, "Air-Sea Interface Fluxes over the Indian Ocean during INDOEX, IFP-99", Journal of Atmospheric and Solar-Terrestrial Physics 64(3): 291305, 2002. [DOI : 10.1016/S1364-6826(01)00091-8]

Publications in Peer-Reviewed Journals (Continued ...):

51 **D. Bala Subrahamanyam**, K. Sen Gupta, Sudha Ravindran and Praveena Krishnan, “Sea Breeze And Land Breeze Along The West Coast Of Indian Subcontinent over the latitude range 15 °N to°N during INDOEX, IFP-99 (SK-141) Cruise”, Current Science (Supplement) 80: 85 - 88, 2001.

52 Parameswaran, K., Prabha R. Nair, Rekha Rajan and **D. Bala Subrahamanyam**, “Spatial distribution of aerosol concentrations over the Arabian Sea and the Indian Ocean during Intense Field Phase of INDOEX”, Current Science (Supplement) 80, 161 - 165, 2001.

Publication in VSSC Home Journal (Countdown):

53 **D. Bala Subrahamanyam** and Radhika Ramachandran, “All About Cyclones”, Countdown (VSSC Home Journal) 466: 02 - 05, February 2019.

डॉ. दामु बाला सुब्रहमण्यम
वैज्ञानिक / अभियंता - एसजी, प्रधान, एनएएम शाखा, एसपीएल
दूरभाष: +९१-४७१-२५६३७३४
ई-मेल: db_subrahamanyam[at]vssc[dot]gov[dot]in

अनुसंधान क्षेत्र:

सीमा-परत मौसम विज्ञान, क्षेत्रीय वायुमंडलीय मॉडलिंग, संख्यात्मक मौसम पूर्वानुमान, वृहत भंवर अनुकरण, उष्णीय चक्रवाती तूफ़ान, समुद्री सतह-वायु की अन्तःक्रियाएं, वायुमंडलीय सीमा परत, आंकड़ों का समत्व, कृत्रिम बुद्धि

शैक्षणिक योग्यता:

डिग्री	वर्ष	विवरण
पीएचडी	२००४	भौतिकी (विज्ञान संकाय), शोधग्रन्थ का शीर्षक: "ऑब्ज़र्वेशनल एंड मॉडलिंग स्टडीज ऑफ़ द मरीन एटमोस्फियरिक बाउंड्री लेयर ओवर द ट्रॉपिकल इंडियन ओसियन ड्यूरिंग इंडोएक्स" महात्मा गाँधी विश्वविद्यालय, कोट्टायम, भारत शोध पर्यवेक्षक: डॉ. राधिका रामचंद्रन
एमएससी	१९९६	भौतिकी (इलेक्ट्रॉनिक्स में विशेषज्ञता) पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर, भारत
बीएससी	१९९४	भौतिक शास्त्र, रसायन शास्त्र, गणित पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर, भारत

व्यावसायिक पृष्ठभूमि:

पद	अवधि	संस्थान
वैज्ञानिक	२००६ - वर्तमान	अंतरिक्ष भौतिकी प्रयोगशाला, विक्रम साराभाई अंतरिक्ष केंद्र इसरो, तिरुवनंतपुरम, भारत
आमंत्रित वैज्ञानिक	२००५ - २००६	कोरिया महासागर अनुसंधान और विकास संस्थान अनसान, कोरिया गणतंत्र
परियोजना वैज्ञानिक 'सी'	२००३ - २००५	भारतीय राष्ट्रीय महासागर सूचना केंद्र पृथ्वी विज्ञान मंत्रालय, हैदराबाद, भारत
शोध सहयोगी	२००३ - २००३	अंतरिक्ष भौतिकी प्रयोगशाला, विक्रम साराभाई अंतरिक्ष केंद्र इसरो, तिरुवनंतपुरम, भारत
इसरो अध्येता	१९९८ - २००३	अंतरिक्ष भौतिकी प्रयोगशाला, विक्रम साराभाई अंतरिक्ष केंद्र इसरो, तिरुवनंतपुरम, भारत
सहायक प्रोफेसर (संविदा नियुक्ति)	१९९६ - १९९८	शासकीय कला और विज्ञान महाविद्यालय, दुर्ग, भारत (पं. रविशंकर शुक्ल विश्वविद्यालय, रायपुर से मान्यता प्राप्त)

पुरस्कार/सम्मान/स्वीकरन/अभिनंदन:

उपदेशक (परियोजना 'मौसम') डीटीडीआई, बैंगलुरु)	आर्टिफिशियल इंटेलिजेंस और मशीन लर्निंग का उपयोग करते हुए शार में मौसम की भविष्यवाणी के लिए प्रोजेक्ट "मौसम"
सदस्य	इंटर-सेंटर वेदर फोरकास्ट एक्सपर्ट टीम फॉर पीएसएलवी/जीएसएलवी मिशंस (२००८ - वर्त्तमान)
मुख्य अतिथि संपादक (एडवांसेज इन मीटीओरोलोजी)	स्पेशल इशू ऑन "एटमोस्फियरिक बाउंड्री-लेयर प्रोसेसेज एंड एटमोस्फियरिक मॉडलिंग" (२०१५)
सर्वश्रेष्ठ पुस्तकालय उपयोगकर्ता (२०१९)	बेस्ट लाइब्रेरी यूजर अवार्ड ऑफ़ वीएसएससी/आईआईएसयु
मानार्थ सदस्य (२०१५)	यूरोपियन जियोसाइंस यूनियन
कोस्पार एसोसिएट	कोस्पार - कमेटी ऑन स्पेस रिसर्च
सर्वश्रेष्ठ शोध-पत्र (ट्रोपमेट - २०११)	"शार्ट-रेंज वेदर प्रिडिक्शन्स इन सपोर्ट ऑफ़ पीएसएलवी एंड जीएसएलवी लांच एक्टिविटीज: रोल ऑफ़ हाई-रेसोलुशन रीजनल मॉडल" बाई डी. बाला सुब्रहमण्यम एंड टी. जे. अनुरोस

गगन (वीएसएससी हिंदी जर्नल) में सर्वश्रेष्ठ रचना के लिए प्रथम पुरस्कार

क्रमांक ४८ (अक्टूबर २०१८ - मार्च २०१९)
क्या ज़िन्दगी में उन्नयन ज़रूरी है?

क्रमांक ४६ (अक्टूबर २०१७ - मार्च २०१८)
आज के सन्दर्भ में गुरुकुल की ५ प्रेरणादायक बातें

क्रमांक ४३ (अप्रैल २०१६ - सितम्बर २०१६)
डीपीसी का भूत

क्रमांक ४१ (अप्रैल २०१५ - सितम्बर २०१५)
समय के साथ बदलते रिश्ते

क्रमांक ३९ (अक्टूबर २०१३ - मार्च २०१४)
साढ़े चार सौ का रिश्ता

क्रमांक ३८ (अप्रैल २०१४ - सितम्बर २०१४)
एक असंतुलित समाज

क्रमांक ३६ (जून २०१२ - दिसंबर २०१२)
एक अविस्मरणीय मुलाकात

प्रमुख अतिरिक्त जिम्मेदारियां:

अध्यक्ष	एसपीएल वेबसाइट डेवलपमेंट एंड मैंटेनेंस टीम (२००८ - २०२१)
को-कोर्डिनेटर	एसपीएल में राजभाषा का कार्यान्वयन (२०१८ - २०२१)
सदस्य	प्रमोचन (वीएसएससी की त्रैमासिक द्विभाषी पत्रिका) (२०२० - वर्त्तमान)
सदस्य	वीएसएससी में डिजिटल इंडिया सप्ताह का समारोह (२०१८ - वर्त्तमान)
सदस्य	विश्व अंतरिक्ष सप्ताह (२०१२ - २०१९)

अनुसंधान मार्गदर्शन:

रोशनी एस.	पीएचडी (२०२२)	कोचीन यूनिवर्सिटी ऑफ़ साइंस एंड टेक्नोलॉजी, कोचीन
फ्रेड्डी पी. पॉल	पीएचडी (२०२१)	"स्टडीज ऑन ट्रॉपिकल सीक्लोनेस ओवर द बे ऑफ़ बंगाल एंड द अरेबियन से यूसिंग द रीजनल न्यूमेरिकल वेदर प्रेडिक्शन मॉडल कॉस्मो", कोचीन यूनिवर्सिटी ऑफ़ साइंस एंड टेक्नोलॉजी, कोचीन
टी. जे. अनुरोस	पीएचडी (२०१५)	"इन्वेस्टीगेशन ऑफ़ एटमोस्फियरिक बाउंड्री लेयर केरेक्टेरिस्टिक्स ओवर द ट्रॉपिक्स थ्रू न्यूमेरिकल वेदर प्रेडिक्शन मॉडल्स", केरल विश्वविद्यालय, तिरुवनंतपुरम

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सर्वस्वीकृत जर्नल्स में प्रकाशन सूची (पिछले पृष्ट से ....)

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वीएसएससी के होम जर्नल (काउंटडाउन) में प्रकाशन सूची:

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