Publications

(a) Books already published: Nil

(b) Chapters in Books already published:

1. Ibe, O. and **Nymphas, E. F.** (2009). Temperature variations and their effects on rainfall in

Nigeria. In Ibrahim D.; Adnan M.; Arif H. and Hikmet. T. K. (Eds). Global Warming, Green

Energy and Technology. New York: Springer Sciences +Business Media, LLC2010: 565-578.

ISBN: 978-1-4419-1016-5, (United States of America). (Contribution: 60%)

2. **Nymphas, E. F.** (2013). Transformer and Transmission of Power. In Farai I. P. and Oni, O. M.

(Eds.). Fundamentals of Electricity and Magnetism. Ibadan, Ibadan University Press: 205-222.

ISBN: 978-978-8456-09-4. (Nigeria), (Contribution: 100%)

(c) Articles that have already appeared in Refereed Conference Proceedings

3. Oladosu, O.R., Ayoola, M.A. and **Nymphas, E.F.** (2004)**.** Soil Thermal Properties at Nimex-1 site.

Proceedings of the workshop on the Nigerian Micrometeorological Experiment (NIMEX-1). In

Jegede, O. O., Okogbue, E. C. and Balogun, E. E. (Eds.): 44-46. (Nigeria) (Contribution: 20%).

(Published in July 15, 2004).

4. **Nymphas, E.F.,** Adeniyi, M.O., Sunmonu, L.A., Jegede, O.O. and Ogolo, E.O. (2004). The Surface

Energy Budget during NIMEX-1. Proceedings of the wworkshop on the Nigerian

Micrometeorological Experiment (NIMEX-1), July 15, 2004. In Jegede, O. O., Okogbue, E. C. and

Balogun, E. E. (Eds.):50-53. (Nigeria), (Contribution: 35%). (Published in July 15, 2004).

5. Ibe, O. and **Nymphas, E. F.** (2020). Determination of Rainfall Attenuation at Millimeter Wave

Band for the Design of 5G and Higher Bandwidth Radio Equipment for Terrestrial Paths in the

Tropical Region. International Conference on Research in Science and Technology (ICEST-20, 9-10

July, 2020), (Ghana): 48-65. (Publisher: IIERD Explore). In Sahajeev S. S., Chris R., Muhammad F.

Razia P. (Eds). (Contribution: 60%)

(d) Patents and Copyrights: Nil

(e) Articles that have already appeared in learned journals

6. Oladiran, E. O. and **Nymphas, E. F**. (2001). A review of bulk layer Pollution transfer over Nigeria

during the Harmattan season, Journal of Science Research, Vol.7, No. 1: 1- 4, (Nigeria). (Contribution: 80%)

7. **Nymphas, E.F.** and Oladiran, E.O. (2001). The design, construction and behaviour of a modified Franklin rod and its effectiveness in Lightning protection. Journal of Science Research, Vol. 7, No.2: 45-51, (Nigeria). (Contribution: 80%).

8. **Nymphas, E. F.,** Adeniyi, M. O., Ogolo, E. O. and Oladiran, E. O. (2004). Lightning signature as

an index for the determination of the beginning of the planting season in Nigeria", African journal

of Science and Technology (Science and Engineering Series) Vol. 5, No. 2: 18-33. (Kenya). (Contribution: 20%)

9. Jegede, O.O., Mauder, M., Okogbue, E.C., Foken,T., Balogun, E.E., Adedokun, J.A., Oladiran, E.O., Omotosho, J.A., Balogun, A.A., Oladosu, O.R., Sunmonu, L.A., Ayoola, M.A., Aregbesola, T.O., Ogolo, E.O., **Nymphas, E.F.,** Adeniyi, M. O. Olatona, G.I., Ladipo, K.O., Ohamobi, S.I., Gbobaniyi, E.O., and G.O. Akinlade (2004). The Nigerian Micrometeorological Experiment(NIMEX-1):An Overview. Ife Journal of Science, Vol. 6, No. 2: 191-202, *(*Nigeria). (Contribution: 10%)

10. Oladiran, E.O., **Nymphas, E.F.**, Akpan, U.E., and Israelsson, S. (2006).The Characteristics of Positive Ground Discharges of Tropical Thunderstorms at Ibadan, Nigeria. African Journal of Science and Technology (Science and Engineering Series) Vol.7. No. 2: 95-98, (Kenya). (Contribution: 50%)

11. **Nymphas, E. F.**, Adeniyi, M. O., Ayoola, M. A. and Oladiran, E. O. (2009). Micrometeorological measurements in Nigeria during the total solar eclipse of 29 March, 2006. Journal of Atmospheric Solar-Terrestrial Physics, Vol.71: 1245-1253. (Austria). (Contribution: 50%)

12. Ogolo, E. O., Falodun, S. E., Oluyamo, S. S. and **Nymphas, E. F. (2009)**. Analysis of data on net longwave, shortwave and global radiation during the transition period in a tropical station in Southwestern Nigeria. Indian Journal of Radio and Space Physics, Vol. 38: 347-352, (India). (Contribution: 40%)

13. Adeniyi, M. O., Ogunsola, O. E., **Nymphas, E. F.** and Oladiran, E. O. (2009). Food security

measures during uncertain climatic conditions in Nigeria. African Journal of food, Agricultural Nutrition and development, (Kenya). Vol. 9. No.2: 652-677. (30%)

14. Nymphas, E. F., Adeniyi, M. O., and Oladiran, E. O. (2010). Behaviour of multiple lightning dischargers under a tropical thundercloud. Journal of Applied Science and Technology (JAST), Vol. 15. No. 1 & 2: 77-84, (Ghana). (Contribution: 60%)

*15. **Nymphas, E. F.** and Oladiran, E. O. (2011). On the Environmental Effects on a Point Discharger.

Journal of Science Research, Vol. 10. No. 1: 90-96. (Nigeria). (Contribution: 80%)

*16. Adeniyi, M. O. and **Nymphas, E. F.** (2011). Estimation of bare soil surface temperature from air

temperature and soil depth temperature in a tropical station. International journal of Natural and

Applied Sciences, Vol.7. No. 4: 429-437, (Nigeria). (Contribution: 20%)

*17. **Nymphas, E. F.**, Otunla, T. A., Adeniyi, M. O. and Oladiran, E. O. (2012). Impact of the total solar

eclipse of 29 March 2006 on the surface energy fluxes at Ibadan, Nigeria. Journal of Atmospheric

Solar-Terrestrial Physics, Vol. 80: 28-36, (Netherlands). (Contribution: 60%)

*18. Adeniyi, M. O.; **Nymphas, E. F.** and Oladiran, E. O. (2012). Characteristics of total solar radiation in urban tropical environment. International Journal of the Physical Sciences, Vol.7, No. 30:

5154-5161, (Nigeria). (Contribution: 20%)

*19. Adeniyi, M. O., Oshunsanya, S. O., and **Nymphas, E. F.** (2012). Validation of analytical algorithms

for the estimation of soil thermal properties using de Vries model. American Journal of Scientific

Research. Vol.3. No. 2: 103-114, (United states of America). Contribution: 20%) (Currently Vol.8.

No. 3, 2017)

*20. Salami, O. R. and **Nymphas, E. F. (2012)**. Variability of the Critical Frequency of the F2 Layer, foF2

in West Africa using Ionosonde Stations at Ouagadougu and Dakar. Research Journal of Applied

Sciences, Vol.7. No. 9 & 12: 474-480, (Pakistan). (Contribution: 80%)

*21. Adeniyi, M. O. and **Nymphas, E. F.** (2013)**. E**stimation of surface energy fluxes from bare ground in

a tropical station using priestleytaylor method. Journal of Science and Technology, Vol. 33, No. 1:

41-54, (Ghana). (Contribution: 20%)

*22. **Nymphas, E. F.** and Adeyemi, T. A. (2014). Variability of sporadic-e (Es) layer at two Equatorial

stations: Fortaleza (3^{o}S, 38^{o}W) and Ilorin (8.5^{o}N, 4.5^{o}E). Journal of Science and Technology, Vol.

34, No. 3: 35-46, (Ghana). (Contribution: 80%)

*23. Rauff, K. O. and **Nymphas, E. F.** (2016). A Statistical Approach to Estimate Wind Speed

Distribution in Ibadan, Nigeria. Physical Science International Journal, Vol.11. No.2:1-14, (India). (Contribution: 60%)

*24. Otunla T. A., Ukaegbu S. C. and **Nymphas, E. F.** (2018). Design and Construction of a low cost air

temperature and pressure data-logging equipment using Raspberry Pi. Journal of Nigerian

Association Mathematical Physics, Vol. 44: 421-424, (Nigeria). (Contribution: 40%)

*25. Ibe, O. and **Nymphas, E. F.** (2019). Characteristics of worst hour rainfall rate for radio wave propagation modeling in Nigeria. Meteorology and Atmospheric Physics, Vol. 131. No.2: 251-261, (Austria). (Contribution: 70%)

*26. Aluko T. O.; **Nymphas E.F**.; Bolaji O. A. and Odubanjo O. F. (2019). Meteorological Comfort Indices to Assess Extreme Warmness in Southwest Nigeria. European Journal of Engineering Research and Science, Vol. 4. No. 2: 50-53. (United Kingdom). (Contribution: 30%)

*27. Adeniyi M. O.; **Nymphas E. F**. and Oladiran E. O. (2019). Simulating the influence of Greenhouse

Gases on the Climate of West Africa. Pollution, Vol.5. No.2: 301-312, (Iran). (Contribution: 30%)

*28. Nwaokoro E, and **Nymphas, E. F.** (2019). Temperature Variations and Soil Thermal properties at the Nigeria Mesocscale Experiment site, Ibadan, Nigeria. International Research Journal of Pure and Applied Physics, Vol. 6, No. 2: 34-43, (United Kingdom). (Contribution: 70%)

*29. **Nymphas, E. F.** and Udomboso, C. G. (2020). An Artificial Neural Network Estimation of global solar radiation at Ibadan, Nigeria using meteorological data. Transactions of the Nigerian Association of Mathematical Physics, Vol. 12: 179-186, (Nigeria). (Contribution: 50%)

*30. Nwakoro, E. and **Nymphas, E. F.** (2021). Comparison analysis of different models used to determine soil thermal conductivity and diffusivity at NIMEX site, Ibadan. International Research journal of Pure and Applied Physics, Vol. 8. No.1: 1-13, (United Kingdom). (Contribution: 70%)

*31. Ibe, O. and **Nymphas, E. F.** (2021). Characterization of tropical rainfall structure for some selected locations in Nigeria. Journal of the Nigerian Association of Mathematical Physics, Vol.59.: 43-156, (Nigeria). (Contribution: 70%). (Published in (March,2021)

*32. Ibe. O. and **Nymphas, E. F.** (2021). Worst Month Rain Rate Characterization for Line-of-sight link performance in tropical locations. Journal of Computing and Informatics, Vol. 2. No.1: 79-88, (Nigeria). (Contribution: 70%): (Published in May, 2021).

(f) Books, Chapters in Books and Articles already accepted for publications: Nil

(g) Technical Reports and Monographs: Nil

* Publications which have appeared in journals since the last promotion

XI Major Conferences and Workshops Attended in the last five years with Papers Read (in the last 5 years):

1. Ibe, O. and **Nymphas, E. F.** (2020). International Conference on Researches in Science and Technology (ICRST-20), 9-10 July, 2020, (Accra, Ghana). Paper read: Determination of rainfall attenuation at millimeter wave band for the design of 5G and higher bandwidth radio equipment for terrestrial paths in the tropical region.
2. Ibe, O. and **Nymphas, E. F.** (2021). The 7th URSI-NG Conference, 2021, International Union of Radio Science- Nigeria Conference, July 2021. (Nigeria). Paper read: Attenuation of Millimeter Wave Radio Signal at Worst Hour Rainfall Rate in a Tropical Region.

Dr Emmanuel F. NYMPHAS Signature:…… Date

XII Ten Best Publications that Reflect the Totality of my Contributions to Scholarship

1. **Nymphas, E.F.** and Oladiran, E.O. (2001). The design, construction and behaviour of a modified Franklin rod and its effectiveness in Lightning protection. Journal of Science Research, Vol. 7, No.2, pp45-51
2. **Nymphas, E. F.** and Oladiran, E. O. (2001). On the protection of structures by a modified Franklin rod, Journal of Science Research, Vol. 7, No. 2, pp27-31
3. **Nymphas, E. F.**, Adeniyi, M. O. Ayoola, M. A. and Oladiran, E. O. (2009). Micrometeorological measurements in Nigeria during the total solar eclipse of 29 March, 2006. Journal of Atmospheric Solar-Terrestrial Physics, Vol.71: 1245-1253.
4. **Nymphas, E. F.,** Adeniyi, M. O., and Oladiran, E. O. (2010). Behaviour of multiple lightning dischargers under a tropical thundercloud. Journal of Applied Science and Technology (JAST), 15(1 & 2): 77-84.
5. **Nymphas, E. F.**, Otunla, T. A., Adeniyi, M. O. and Oladiran, E. O. (2012). Impact of the total solar eclipse of 29 March 2006 on the surface energy fluxes at Ibadan, Nigeria. Journal of Atmospheric Solar-Terrestrial Physics, Vol. 80: 28-36
6. **Nymphas, E. F.** and Adeyemi, T. A. (2014). Variability of sporadic-e (Es) layer at two Equatorial stations: Fortaleza (3^oS, 38^oW) and Ilorin (8.5^oN, 4.5^oE). Journal of Science and Technology, Vol. 34, No. 3: 35-46
7. Ibe, O. and **Nymphas, E. F.** (2019). Characteristics of worst hour rainfall rate for radio wave propagation modeling in Nigeria. Meteorology and Atmospheric Physics, Vol. 131(2): 251-261
8. Adeniyi M. O.; **Nymphas E. F**. and Oladiran E. O. (2019). Simulating the influence of Greenhouse Gases on the Climate of West Africa. Pollution, Vol.5(2): 301-312

9. Nwakoro, E. and **Nymphas, E. F.** (2021). Comparison analysis of different models used to determine soil thermal conductivity and diffusivity at NIMEX site, Ibadan. International journal of Pure and Applied Physics, vol. 8(1): 1-13
10. Ibe, O. and **Nymphas, E. F.** (2021). Characterization of tropical rainfall structure for some selected locations in Nigeria. Journal of the Nigerian Association of Mathematical Physics, Vol.59: 143-156