

## **C.V. OF MADHUSUDAN GHOSH**



**Madhusudan Ghosh** received his B.Sc.(Physics), M.Sc.(Physics) and Ph.D.(Science) degree from Burdwan University, West Bengal, India in the year 1997, 1999 and 2013 respectively. At present he holds a faculty positions at the department of Physics, Barasat Govt. College, Barasat, North 24 PGS, West Bengal, India. His research interest centres on field of synchronous communication system and nonlinear dynamics of discrete controlled systems. He has published about 6 research papers in inland and foreign journals and has contributed about 4 technical papers in national and international seminars and conferences.

1. Name: **Dr. Madhusudan Ghosh**
2. Qualifications: **M.Sc. in Physics, Ph.D. (Science)**
3. Date of Birth: **11.11.1974**
4. Present Status: **Associate Professor of Physics**
5. Received Award/  
Distinction: **National Scholarship**
6. Research Fellowship: **UGC (NET) for JRF & Lectureship**
7. Teaching Experience: **Working as Assistant/Associate Professor of Physics to teach in UG level (Honours/General) since 2002 and PG level since Sept,2020 and still continuing.**
8. Research Experience: **19 Years as UGC JRF and had been continuing as a Part time research scholar from January, 2002 to till the completion of Ph.D. degree (May, 2013). After that I have been continuing my research work in the Department of Physics, Maulana Azad College, Kolkata-13, till July,2019**
9. Academic Administrative  
Experience: **Reviewer of International Journal of Electronics, UK. Working as an active member of NAAC committee, as a member of Tabulation sub-Committee, as convener of Income Tax sub-committee, as a member of Examination Committee, as a member of Service Book & CAS Committee and as a member of Student Election Committee etc.**
10. Miscellaneous: **Conducted a state level seminar funded by DST, West Bengal on December, 2005 to celebrate International Year of Physics in the Dept, of Physics, A B N Seal College, Coochbehar. Acted as resource person of DBT STAR College Workshop/Project in October, 2011, December, 2013 and February, 2015 in the Dept, of Physics, Maulana Azad College, Kolkata.**
11. Institution Served: **(i) A. B. N. Seal College, Coochbehar  
(ii) Krishnagar Govt. College, Krishnagar  
(iii) Maulana Azad College  
(iv) Government General Degree College, Singur  
(v) Barasat Govt. College (Date of joining 01/09/2020 and Continuing)**

## **List of Journal/Proceedings Publications, Presentation, Workshop, Course work, Project work etc.**

### **A) Journal Publications:**

- (i) **M. Ghosh**, Dr A. Hati, Dr B. C. Sarkar, "*phase detector for data clock recover circuit*", Institute of Electrical Engineers, UK (2002), Vol: 38, No.: 04, pp: 161-163, 14<sup>th</sup> February, 2002
- (ii) **M. Ghosh**, Dr A. Hati, Dr B. C. Sarkar, "*On improving the spectral purity of the regenerated clock signal in a data clock recovery circuit*", Indian Journal of Engineering and Material Science (IJEMS), Vol: 09, pp: 255-259, August, 2002
- (iii) **M. Ghosh**, T. Banerjee and B. C. Sarkar, "*Design limitations and its effect in the performance of ZCI-DPLL*", ACEEE International Journal on Communication, Vol: 3, Issue: 1, pp: 48-52, 2012
- (iv) **M. Ghosh**, T. Banerjee and B. C. Sarkar, "*Nonlinear Dynamics and Chaos in Second Order ZCI-DPLLs with Inherent Time Delay*", International Journal of Engineering and Advanced Technology (IJEAT), Vol: 01, no.-6, pp: 235-242, Aug, 2012
- (v) **M Ghosh**, "*Performance Enhancement of Digital Phase Locked Loop (DPLL) Based FM Demodulator by Using of Variable Gain Control in the Negative Region of the Input Signal*", MAC Journal of Basic and Applied Sciences, Volume 2, No. 1, pp - 67-74, March 2015
- (vi) **M Ghosh**, S. Dutta, "*A Fast Acquisition Data Clock Recovery Circuit*", MAC Journal of Basic and Applied Sciences, Volume 2, No. 1, pp - 111-116, March 2015
- (vii) **M. Ghosh**, "*Improvement of the Performance of DPLL Based FM Demodulator by using of Variable Gain Control in the Positive Region of the Input Signal*", International Journal of Advanced Research in Electronics and Communication Engineering (IJARECE), Volume 4, Issue 5, pp - 1359-1362, May 2015
- (viii) **M. Ghosh**, "*Additive Noise Response of Some Novel Phase Detector Based Charge Pump PLL Circuits; an Analytical and Simulation*", Indian Journal of Applied Research (IJAR), Volume 5, Issue 10, pp - 726-731, October 2015, ISSN No: 2249-555X
- (ix) **M. Ghosh**, "*Nonlinear Dynamics and Chaotic Behavior of Delayed Digital Phase Locked Loop*", Scientific Voyage, Volume 1, Issue 3, pp: 7-14, October 2015 ISSN No: 2395-5546

### **B) Proceedings:**

- (i) **M. Ghosh**, "*Dividerless frequency synthesizer using a new phase detector*", Proceedings of E.P. Centenary Seminar organized jointly by the younger member section, Calcutta branch of the institute of Electrical Engineers and the IEE students centre, Institute of Radio physics and Electronics, University of Calcutta, India, on 21<sup>st</sup> day of August, 2002 at the institute of radio physics and Electronics, University of Calcutta, India.

(ii) **M. Ghosh**, T. Banerjee and B. C. Sarkar , “*Nonlinear Dynamics of DPLL With Inherent Time Delay*”, Proceedings of National Conference on Nonlinear Systems & Dynamics, Saha Institute of Nuclear Physics, Kolkata, India, March 5-7, 2009.

(iii) **M. Ghosh** , “*Effect of sampling pulse width in the performance of DPLL based FM demodulator and its modification*”, Proceedings of National Workshop on “Quantum Perspective of Advance Materials (QPAM-11)” organized by Department of Physics and Technophysics, Vidyasagar University from March 23-25, 2011.

#### **C) Presentations:**

(i) Presented a research paper entitled “*Dividerless frequency synthesizer using a new phase detector*” in the E.P. Centenary Seminar organized jointly by the younger member section, Calcutta branch of the institute of Electrical Engineers and the IEE students centre, Institute of Radio physics and Electronics, University of Calcutta, India, on 21<sup>st</sup> day of August, 2002 at the institute of radio physics and Electronics, University of Calcutta, India.

(ii) Presented a research paper entitled “*Effect of sampling pulse width in the performance of DPLL based FM demodulator and its modification*” in the National Workshop on “Quantum Perspective of Advance Materials (QPAM-11)” organized by Department of Physics and Technophysics, Vidyasagar University from March 23-25, 2011.

#### **D) Workshop:**

(i) Attend in the workshop on Microwave and Millimeterwave Communication on 22-23 March, 2001, organized by Institute of Radio physics and Electronics, University of Calcutta.

(ii) Acted as Resource Person for the “in-house” training programme “Workshop on Theoretical & Experimental Physics” from 31/10/2011 to 02/11/2011.

#### **E) Course Work:**

(i) Orientation Programme: From 01/03/2005 to 29/03/2005 organised by ASC, Jadavpur University

(ii) Refresher Course: From 21/01/2006 to 10/02/2006 organised by ASC, Burdwan University

(iii) Refresher Course: From 05/07/2010 to 24/07/2010 organised by ASC, Calcutta University

(iv) Refresher Course: From 07/07/2014 to 26/07/2014 organised by ASC, Calcutta University

#### **F) Project Work:**

(i) Perform DBT sponsored project work entitled “**A Fast Acquisition Data Clock Recovery Circuit**” in December, 2013

(ii) Performing a UGC sponsored minor research project (MRP) for two years with effect from April, 2014 and UGC sanction letter no.-PSW-058/13-14 dated 18<sup>th</sup> March, 2014.

Title of the Project: **JITTER REDUCTION AND DESIGN DEPENDENT DYNAMICS OF CARRIER/CLOCK**

(iii) Perform DBT sponsored project work entitled “**Variable voltage source using weighted resistor digital to analog (D/A) converter**” from 26/02/2015 to 28/02/2015.