Journal Publications


Ranjini Menon and Nabhiraj P Y, “High speed micro-fabrication using inductively coupled plasma ion source based focused ion beam system”, Vacuum (2015) 111, 166-169


Ranjini Menon, Nabhiraj P Y and R K Bhandari, “Improvements in the angular current density of inductively coupled plasma ion source for focused heavy ion beams”, Vacuum (2013) 97, 71-714


V. S. Pandit, Ph.D.; P Sing Babu; A Goswami; S Srivastava; A Misra; Mou Chatterjee; P Y Nabhiraj et al., “Development of microwave ion source and low energy beam transport system for high current cyclotron”, Nucl. Instr. And Methods B 15 (2013), 434-437


Articles in Conferences and Invited Talks


Ashif Reza, Anuraag Misra, Indira Chatterjee, Parnika Das, “Development and characterization of a high frequency low noise amplifier”, Twenty Second National Conference on Communications (NCC-2016), IIT Guwahati; 03/2016, DOI:10.1109/NCC.2016.7561113


Anuraag Misra, A Goswami, P Sing Babu S Srivastava, V S Pandit, “Plasma studies and beam emittance measurements of 2.45 GHz microwave ion source at VECC”, Indian National Particle Accelerator Conference 2015; 12/2015


Aruna Devi, Ranjini Menon, Priya Maheshwari, S. Neogy, P. Y. Nabhiraj, P. K. Pujari and D. Srivastav, “PAS Study of Zr-2.5%Nb Alloy Irradiated by Ar9+ Heavy Ions” 11th International workshop on Positron and Positronium chemistry (PPC-11), Goa, India, November 9-14, 2014, Page – 111


Saurabh Srivastava, Yashwant Kumar, A Misra, S K Thakur, V S Pandit, “Optimum design of buck converter controller using LQR approach”, ICACT; 09/2013, DOI:10.1109/ICACT.2013.6710514

Nabhiraj P Y and Ranjini Menon, “Ion beam diagnostics of high current RF ion source”, Indian particle Accelerator Conference-2013 (InPAC-2013) VECC, Kolkata, P-125-129, Nov, 19- 22, 2013,

B Ganguly, Ranjini Menon, P Y Nabhiraj et al., “Depth resolved slow positron beam analysis of electron cyclotron ion beam irradiated graphiteand boron nitride targets”, 13th International Workshop on Slow Positron Beam Techniques and Applications SLOPOS-13,15 – 20 September 2013. Tehcnische University, Munich, Germany


Saurabh Srivastava, Anuraag Misra, V.S. Pandit”, “Auto tuned PID controller design using Diophantine equation”, Communications, Devices and Intelligent Systems (CODIS), 2012 International Conference on; 12/2012, DOI:10.1109/CODIS.2012.6422246

Mou Chatterjee, Dhananjoy Koley, P.Y. Nabhiraj, “Development of an ethernet enabled microcontroller based module for superconducting cyclotron ecr beam line control” PCAPAC 2012.


Anuraag Misra, P Y Nabhiraj, C Mallik, “Design of an High Power Ultra Wide Band Hemispherical Cap Waveguide to Coaxial Adapter”, Vacuum Electronic devices and applications, CEERI, PILANI; 09/2012


SumanGuha, P Y Nabhiraj et al., “Design and implementation of an IEEE 802.15.4 zigbee based star network for data acquisition and monitoring,


Saurabh Srivastava, A Misra, H K Pandey, S K Thakur, V S Pandit, “Design and implementation of the wireless high voltage control system”, Indian National Particle Accelerator Conference 2011; 02/2011

Anuraag Misra: Development of Ku-band waveguide break for ECR-3 Ion Source. Indian National Particle Accelerator Conference 2011, New Delhi; 02/2011


RanjiniMenon and Nabhiraj P Y, “Simulaion of ion beam optics for focused ion beam system”, InPAC-2011, 15th – 18th, Feb 2011, IUAC, New Delhi P-262

P.Y. Nabhiraj, RanjiniMenon, K. Remashan, “Large area, direct write focused ion beam lithography system”, InPAC-2011, 15th – 18th, Feb 2011, IUAC, New Delhi P-263

P Y Nabhiraj , “Development of plasma ion source based micromachining system”, InPAC-2011, 15th – 18th, Feb 2011, IUAC, New Delhi


Mou Chatterjee, P Y Nabhiraj et al, “Modifications and improvements in the remote control system of the high current ion source”, InPAC-2011, 15th – 18th, Feb 2011, IUAC, New Delhi, Page 183


Ranjini Menon, P Y Nabhiraj, C Mallik and R K Bhandari, “Fabrication and Characterization of Tungsten field emission probes”, IVSNS 2009 Nov 11-13, 2009, CEERI Pilani


P Y Nabhiraj, Ranjini Menon, G Mohan Rao1, S Mohan1, K Rameshan, C Mallik and R K Bhandari, “Compact Inductive Coupled Plasma based ion beam sputtering system for thin film deposition”, IVSNS 2009 Nov 11-13, 2009, CEERI Pilani


Mou Chatterjee, P.Y. Nabhiraj, V.S. Pandit, “An Isolated Remote Control System for the High Current Ion Source”, Indian Particle Accelerator Conference INPAC proceedings 2009


P Y Nabhiraj , “Ion sources for nano to nuclear sciences”, Invited talk in Workshop on Cyclotrons: Rising Expectations & Mounting Challenges 25-26 June 2008, VECC, Kolkata
P Y Nabhiraj, Ranjini Menon R K Bhandari, “Ion energy spread measurements of inductively coupled plasma ion source”, ICOPS-2008, IEEE international conference on plasma science, Karlsruhe, Germany Accepted for presentation.

VS Pandit, G Pal, S Bhattacharya, RC Yadav, SK Thakur, PY Nabhiraj, Mou Chatterjee, A Misra, P Sing Babu, A Goswami, Others,” Development of high current ion source and its injection system for a compact cyclotron at VECC”. Proceedings of DAE-BRNS-PSI symposium on ion beam technology and applications, 01/2007;


C. Mallik, ….,Nabhiraj P Y et al., “Heavy Ion acceleration using 224 cm cyclotron at Kolkata”, APAC04, March 2004, South Korea


