

Curriculum vitae

Dr. Swati Ghosh Acharyya

Ph.D. (Homi Bhabha National Institute, Mumbai, India)

Associate Professor

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Date of Birth: 02 /10 / 1983

Academic Qualifications

	Degree	Year of award	University / Institution	Class /Grade Distinction
1	B.E (Metallurgical Engineering)	2005	NIT Durgapur	80%, First class honors
2	M. Tech (Metallurgical and Materials Engineering)	2007	IIT Kharagpur	94%, First class honors
3	Ph.D. (Materials engineering)	2012	Homi Bhabha National Institute (DAE)	-

Details of Employment and Nature of Duties

- **Associate Professor** (2nd January 2020 onwards) in School of Engineering Sciences and Technology, University of Hyderabad, India.

Nature of duties: teaching post graduate and PhD students, research in frontier areas of Materials Science and Engineering

- **Assistant Professor** (20 September, 2013 -1st January 2020) in School of Engineering Sciences and Technology, University of Hyderabad, India.

Nature of duties: teaching post graduate and PhD students, research in frontier areas of Materials Science and Engineering

- **Scientific Officer** (1 September, 2007 – 19 September, 2013), Corrosion Science Section, Materials Science Division, Bhabha Atomic Research Centre (BARC), Mumbai, India.

Nature of duties: actively engaged in materials research especially on corrosion of different alloys used for fabrication of structural components in nuclear power plants.

Awards and recognitions

- Young Associate of Indian National Academy of Engineers (INAE), 2018.
- Young engineer award by INAE, Corrosion Science and Engineering, 2018.
- IEI Young engineer award 2018-2019 for Metallurgical engineering.
- ‘Visiting Fellow’, University of Southampton 2015, Project: ‘Optimisation of nano activated carbon particles by studying textile/ electrode interface using high end microscopic characterization using AFM and SEM.
- Best PhD thesis award in Corrosion Science, 2012 by National Association of Corrosion Engineers (NACE) for the thesis ‘Effect of Surface Working Operations on Electrochemical Corrosion and Susceptibility to Stress Corrosion Cracking of 304L Stainless Steel’.
- Second prize in oral presentation in the category of Metal Sciences at NMD-ATM (National Metallurgist Day and Annual Technical Meeting) 2011 held at Hyderabad from November 13-16, 2011.
- ‘Best paper award’ in CORCON 2011 (Corrosion Conference) in Electrical Power

and Utility Category, held at Mumbai from September 23-29, 2011.

- Corrosion awareness award conferred upon by National association of Corrosion Engineers (NACE) for the best M. Tech dissertation in 2007 for the thesis titled ‘Stainless steels with Plasma sprayed ceramic coating: Corrosion behavior of the system and crack initiation resistance of the sensitized substrate’_
- First prize in oral presentation at COMPOSIT-2007 organized by IIT Kharagpur
- G. S. Tendulkar Award, 2006, for the best overall presentation by The Indian Institute of Metals at NMD-ATM (National Metallurgist Day and Annual Technical Meeting) 2006.
- First prize in oral presentation, in iron and steel section by The Indian Institute of Metals at NMD-ATM (National Metallurgist Day and Annual Technical Meeting) 2006._
- DAE Graduate Fellow of Bhabha Atomic Research Center , 2005 for sponsored M. Tech at IIT Kharagpur.

Field of Specialization:

Corrosion and Surface engineering; Electrochemistry of materials, corrosion resistant, wear resistant, hydrophobic, high temperature resistant coatings, Flexible sensors, Stress corrosion cracking (SCC) of stainless steels and its control; Corrosion of welds; Graphene synthesis using LASER ablation; Graphene based film for material protection; Corrosion of biomedical implants.

Research Experience:

- LASER assisted bulk synthesis of graphene through green route from graphite in a single step at ambient temperature and pressure;
- Fabrication of graphene based corrosion resistant, wear resistant, hydrophobic, high temperature resistant coatings for protecting metallic surfaces.
- Surface engineering for improving the resistance to austenitic stainless steel grade AISI 304L, AISI 316L and AISI 321 SS welds to SCC in presence of chloride ions.
- Corrosion behaviour of dissimilar alloy MIG welds of mild steel-Al alloy 6061. LASER –arc hybrid welding of thick sections of maraging steels.

- Fabrication of novel Ti-Nb alloys with enhanced wear resistance for biomedical implant application
- Stress corrosion cracking of stainless steel, (a) Effect of LASER surface peening, buffing on SCC resistance of stainless steel and nickel base alloys, (b) establishing the mechanism of SCC in surface worked austenitic stainless steel, c) Effect of residual stresses on the ambient temperature SCC of non-sensitized 304L SS and 316L SS.
- Extensive hands on experience on advanced micro structural characterisation techniques such as Atomic Force Microscopy (AFM), Scanning Electron Microscopy (SEM) and advanced electrochemical surface imaging technique such as Scanning Electrochemical Microscopy (SECM) in addition to conventional electrochemical testing like cyclic voltammetry and impedance spectroscopy. In situ studies of the semi conducting nature of the surface film formed on 304L stainless steel as a result of different surface working operations at high temperature (300°C) and pressure (10 MPa) was carried out by contact electric resistance (CER) and controlled distance electrochemistry (CDE) technique

List of PhD. Students

Registration no.	Name	Supervisor	Topic
10ETMM06	Praveen Chapala (completed)	Dr. Swati Ghosh Acharyya	Development of titanium based alloys having improved wear resistance for biomedical implant application
10ETMM12	Kamal Mankari (completed)	Dr. Swati Ghosh Acharyya	Enhancement of stress corrosion cracking resistance of 321 stainless steel welds
11ETMM01	S. Sai Sravanthi (completed)	Dr. Swati Ghosh Acharyya	Corrosion issues in dissimilar metal weld joints (Al alloy- mild steel)
11ETMM12	G. Ravi Kiran (completed)	Dr. Swati Ghosh Acharyya	Large scale laser assisted synthesis of few layered graphene for corrosion protection of SA333 and 15CDV6 steel.
12ETPM05	Pandu Sunil Kumar (thesis submitted)	Dr. Swati Ghosh Acharyya	Effect of different surface working operation on the stress corrosion cracking of 304L SS: mechanism and protection
13ETPM03	Subashini L (thesis submitted)	Dr. Swati Ghosh Acharyya	Laser-arc hybrid welding of maraging steels

On going projects

1. Project Title: “**Intelligent IoT enabled Autonomous Structural Health Monitoring System for Ships, Aeroplanes, Trains and Automobiles**”
Cost in Lakh: 102
Project Status: Ongoing / Completed / Submitted: Ongoing
Funding Agency: IMPRINT (DST-MHRD)
2. Project Title: “**Corrosion Fatigue Crack Sensing in Ship Steel by Acoustic Emission Sensors Along with Detection and Identification using Customized Machine Learning**”
Cost in Lakh: 164
Funding Agency: Naval Research Board, DRDO

Completed Projects

1. Project title: **Development of graphene based coating for inner surface of metallic canister**
Cost in lakh: 9.8
Funding Agency: CARS, ASL, DRDO
2. Failure analysis of SS 321 tubes used in solar thermal power plants for transport of thermic fluid
Cost in lakh: 9.9
Funding agency: Consultancy project , MEIL India, Pvt. Ltd.

List of Publications

Journal publications

- 1 S. Sravanthi, Swati Ghosh Acharyya, K.V. Phani Prabhakar, G. Padmanabham, Integrity of 5052 Al-mild steel dissimilar welds fabricated using MIG-brazing and Cold Metal Transfer in nitric acid, Journal of Materials Processing Technology, In press 2019.
- 2 Sanghamitra Debroy, Santhosh Sivasubramani, Gayatri Vaidya, Swati Ghosh Acharyya and Acharyya, A., Temperature and Size Effect on the Electrical Properties of Monolayer Graphene based Interconnects for Next Generation MQCA based Nanoelectronics, Scientific Reports, A Nature Research Journal, November 2019.
- 3 S. Sravanthi, Swati Ghosh Acharyya, K.V. Phani Prabhakar, Joydip Joarder, Effect of varying weld speed on corrosion resistance and mechanical behavior of

- Aluminium - steel welds fabricated by cold metal transfer technique, *Materials and Manufacturing Processes*, In press, 2019.
- 4 Praveen Chapala, Pandu Sunil Kumar, Vasundhra Bhandari, Joydip Joardar, Swati Ghosh Acharyya, Effect of alloying elements on the microstructure, coefficient of friction, in-vitro corrosion and antibacterial nature of selected Ti-Nb alloys, *Applied Surface Science* Vol. 469, pp. 617-623, 2019.
 - 5 S. Sravanthi, Swati Ghosh Acharyya, K.V. Phani Prabhakar, G. Padmanabham, Integrity of 5052 Al-mild steel dissimilar welds fabricated using MIG-brazing and Cold Metal Transfer in nitric acid, *Journal of Materials Engineering and Performance*, vol 268, pp. 97-106, 2019.
 - 6 Santhosh Sivasubramani, Sanghamitra Debroy, Swati Ghosh Acharyya, Amit Acharyya, Tunable intrinsic magnetic phase transition in pristine single-layer graphene nanoribbons, *Nanotechnology*, (2018) Vol 29, 455701.
 - 7 Kamal Mankari and Swati Ghosh Acharyya, Failure analysis of AISI 321 stainless steel welded pipes in solar thermal power plants, *Engineering Failure Analysis*, (2018) Vol. 86, pp. 33-43.
 - 8 Praveen Chapala, Swati Ghosh Acharyya, S. M. Shariff and Amit Bhattacharjee, Studying the effect of composition on the in vitro wear behavior and elastic modulus of titanium-niobium-based alloys for biomedical implants, (2018) *Biomed. Phys. Eng. Express*, Vol. 4 027003.
 - 9 Sanghamitra Debroy, V. Pavan Kumar, K. Vijaya Sekhar, Swati Ghosh Acharyya, Amit Acharyya (2017). "Synergistic effect of temperature and point defect on the mechanical properties of single layer and bi-layer graphene", *Superlattices and Microstructures* Volume 110, 2017, pp. 205-214.
 - 10 Arvind Gautam, Anuradha Balouria, Divya Andem, Kare Mounika, A. Bhargavi Rani, Acharyya, A., and Swati Ghosh Acharyya, (2017), "Thermo-Magnetic Control System for Nano-Ferromagnetic Particle Doped Shape Memory Alloy for Orthopedic Devices and Rehabilitation Techniques", *Journal of Low Power Electronics*, American Scientific Publishers, Vol. 13, pp. 678-686.
 - 11 Kamal Mankari and Swati Ghosh Acharyya, (2017), "Development of stress corrosion cracking resistant welds of 321 stainless steel by

- simple surface engineering”, *Applied Surface Science*; 426, pp. 944-950.
- 12 Gadde R. Kiran, B. Chandu, Swati G. Acharyya, S. Venugopal Rao & Vadali V.S. S. Srikanth, (2017), "One-step synthesis of bulk quantities of graphene from graphite by femtosecond laser ablation under ambient conditions", *Philosophical Magazine Letters*, Vol. 97, pp. 1-6.
 - 13 Pandu Sunil Kumar, Swati Ghosh Acharyya, S.V. Ramana Rao, Komal Kapoor, (2017) " Distinguishing effect of buffing vs. milling, grinding and turning on the chloride induced SCC susceptibility of 304L stainless steel", *Materials Science and Engineering A*, Volume 687, pp. 193-199.
 - 14 L. Subashini, K. V. Phani Prabhakar, Ravi C. Gundakaram, Swati Ghosh & G. Padmanabham, (2016), “Single Pass Laser-Arc Hybrid Welding of Maraging Steel Thick Sections”, *Materials and Manufacturing Processes* pp. 2186-2198.
 - 15 K.Vijaya Sekhar, Sanghamitra Debroy, V. Pavan Kumar Miriyala, Swati Ghosh Acharyya, Acharyya, A., (2016) "Self-healing phenomena of graphene: potential and applications", *Central European Journal of Physics*. 14, pp. 364-370
 - 16 Sanghamitra Debroy, V. Pavan Kumar Miriyala, K. Vijaya Sekhar, Swati Ghosh Acharyya, Acharyya, A., (2016) "Self healing nature of bilayer graphene", *Superlattices and Microstructures*, 2016, Volume-96, pp. 26-35.
 - 17 Sanghamitra Debroy Bhattacharjee, Pavan Kumar Miriyala, Kolla Vijay Kumar, Swati Ghosh Acharyya and Amit Acharyya (2015) "Graphene heals thy cracks", *Computational Materials Science, Elsevier*. 109, pp. 84-89.
 - 18 S. Madhavan, V. Mehra, S. Pahari, Swati Ghosh, C. D. Sijoy and S. Chaturvedi (2015) "Buckling and longitudinal cracks in electromagnetically accelerated hollow cylinders", *International Journal of Fracture*, 193, pp. 1-16.
 - 19 Swati Ghosh , M Kiran Kumar, Vivekanand Kain, "Studying the Mechanism behind Stress Corrosion Cracking of Non Sensitized 304L Austenitic Stainless Steel", *Advanced Materials Research, Trans Tech Publications* ,Switzerland, Vol. 794, pp. 564-574, 2013.
 - 20 Swati Ghosh , M Kiran Kumar, Vivekanand Kain, "High temperature oxidation behaviour of AISI 304L stainless steel - effect of surface working operations", *Applied Surface Science* , vol. 264, pp. 312- 319, 2013.

- 21 Swati Ghosh Acharyya , A. Khandelwal, V. Kain, A. Kumar, I. Samajdar, "Surface working of 304L stainless steel: Impact on microstructure, electrochemical behavior and SCC resistance", *Materials Characterization* , Volume 72, pp. 68-76, 2012.
- 22 Swati Ghosh , Vishav Preet Singh Rana, Vivekanand Kain, Vivek Mittal and S. K. Baveja, "Role of residual stresses induced by industrial fabrication on stress corrosion cracking susceptibility of austenitic stainless steel", *Materials and Design* , 32 (2011) pp. 3823-3831.
- 23 Swati Ghosh, Vivekanand Kain, "Effect of surface machining and cold working on the ambient temperature chloride stress corrosion cracking susceptibility of AISI 304L stainless steel", *Materials Science and Engineering: A* , 527 (2010) pp. 679-693.
- 24 Swati Ghosh , Vivekanand Kain, "Microstructural changes in AISI 304L stainless steel due to surface machining : effect on its susceptibility to chloride stress corrosion cracking", *Journal of Nuclear Materials* , 403 (2010) pp. 62-67.
- 25 M. Kiran Kumar, Krishna Gaonkar, Swati Ghosh and Vivekanand Kain, M Bojinov, Timo Saario, " Optimisation of the hot conditioning of carbon steel surfaces of primary heat transport system of Pressurized Heavy Water Reactors using electrochemical impedance spectroscopy ", *Journal of Nuclear Materials* , 401 (2010) pp. 46-54.
- 26 Martin Bojinov, Krishna Gaonkar, Swati Ghosh , Vivekanand Kain, Kiran Kumar, and Timo Saario, "Characterisation of the oxide layer on carbon steel during hot conditioning of primary heat transport systems in heavy-water reactors", *Corrosion Science* , 51 (2009) pp. 1146-1156.
- 27 Swati Ghosh , V. Kain, A. Ray, H. Roy, S. Sivaprasad, S. Tarafder, K. K. Ray, "Deterioration in fracture toughness of 304LN austenitic stainless steel due to sensitization", *Metallurgical and Materials Transaction A* , 40 (2009) pp. 55-65.
- 28 Swati Ghosh , S. Roychowdhury, V. Kain, P.V. A. Padmanabhan K. K. Ray, "Feasibility of ceramic coating to guard stainless steels against intergranular corrosion", *Surface Engineering* , 24 (2008) pp. 429-435.
- 29 Swati Ghosh , K. K. Ray, "Influence of sensitization on the fracture toughness of 316LN stainless steel", *Materials Science and Technology* , 30 (2008) pp. 629-

Book Chapter

Swati Ghosh Acharyya, Vivekanad Kain, Baldev Raj, Internal Corrosion Monitoring and Inspection Tools, PP. 11.2-11.5, Narosa Publishing House, 2015 (ISBN: 978-81-8487-413-6).

Patent

1. Vivek Mittal, S J Ghosh, Sonia Mittal, S K Baveja, D D Tyagi, Vivekanand Kain & Swati Ghosh, "A testing setup to determine the effect of residual stresses in thin walled stainless steel tubes used in chloride media on the stress corrosion cracking characteristics", PR no. 110052 HW.
2. Swati Ghosh Acharyya, Gadde Ravi Kiran, Byram Chandu, Soma Venugopal Rao, Tarak Nath de, Badiganti Veera Sekhar, Process for preparation of multi layer graphene and nano-composites thereof, 201911022529 (2019/06/06), 2019.

Conference Proceedings

1. S. Sai Sravanthi, Swati Ghosh Acharyya, Effect of High-Power Intensity on Corrosion Behaviour of Aluminium-Steel Dissimilar Joints Made by Electron Beam Welding, In: Narasimham G., Babu A., Reddy S., Dhanasekaran R. (eds) Recent Trends in Mechanical Engineering. Lecture Notes in Mechanical Engineering. Springer, Singapore pp 227-237, 2020.
2. S.S. Sravanthi, Swati Ghosh Acharyya, Praveen Chapala, Effect of GMAW-brazing and Cold Metal Transfer Welding Techniques on the corrosion behaviour of Aluminium-Steel lap joints, Materials Today Proceedings, Volume 18, Part 7, 2019, Pages 2708-2716.
3. Pandu Sunil Kumar, Swati Ghosh Acharyya "Controlling chloride induced stress corrosion cracking of 316L SS in chloride environment by simple surface engineering " oral presentation at NIT Warangal, National Conference on Frontiers in Corrosion Control of Materials (FCCM) during 28th to 29th June-2018
4. Pandu Sunil Kumar[#], Kamal Mankari[#], Swati Ghosh Acharyya, European Conference on Residual stresses (ECRS 10), "Distinguishing effect of buffing on residual stress distribution and susceptibility of austenitic stainless steel to stress corrosion cracking" - oral presentation, from 11-14, September (2018) at Leuven, Belgium.
5. Pandu Sunil Kumar, Swati Ghosh Acharyya "Controlling chloride induced stress corrosion cracking of 316L SS in chloride environment by simple surface engineering " Materials Today proceedings, 2018 (Accepted)

6. Pandu Sunil Kumar[#], Kamal Mankari[#], Swati Ghosh Acharyya “Distinguishing effect of buffing on residual stress distribution and susceptibility of austenitic stainless steel to stress corrosion cracking” Materials Research Proceedings 6 (2018) 139-144
7. Kamal Mankari and Swati Ghosh Acharyya, “Cracking of AISI 321 Stainless steel welds in solar thermal power plant: Root cause Analysis”, CORCON 2017 organised by NACE from 17-21st September, 2017 held at Mumbai.
8. Pandu Sunil Kumar and Swati Ghosh Acharyya, “Surface buffing and its effect on chloride induced SCC of 304L austenitic stainless steel”, International Conference on Advances in Metallurgy, Materials, and Manufacturing. IMMME17, 6-8th March 2017.
9. Pandu Sunil Kumar and Swati Ghosh Acharyya “Fabricating chloride induced stress corrosion cracking resistant surfaces of 304L stainless steel by simple surface engineering”, CORCON 2017 organised by NACE from 17-21st September, 2017 held at Mumbai.
10. Praveen Chapala, Swati Ghosh Acharyya, S. M. Shariff, Ganesh Naik, “Novel Ti-Nb alloys with improved wear resistance for biomedical implant application”, 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC) 2016
11. Praveen Chapala, S. G. Acharyya, A Shariff, Ganesh Naik, "Microstructural characterization of beta titanium alloys for biomedical implants ", National Conference on Advances in Materials Processing and Characterization, 4th – 6th January 2016.
12. Pandu Sunil Kumar, Swati Ghosh Acharyya. ‘Effect of different surface working operation on the microstructure and hardness of AISI 304L austenitic stainless steel’ at NIT Warangal, National Conference On Advances in Materials Processing and Characterization I (NCAMPC) during 4th Jan 2016 to 6th Jan 2016
13. L. Subashini, E. Anbu Rasu, K. V. Phani Prabhakar, G. Padmanabham, Swati Ghosh Acharyya , “Laser- MIG hybrid welding of 12mm thick Reduced Activation Ferritic Martensitic (RAFM) steel”, Workshop on Advances in Materials Joining Technologies, IIW Hyderabad, 29th May 2015.
14. L. Subashini, K. V. Phani Prabhakar, G. Padmanabham, Swati Ghosh Acharyya, “Laser Arc Hybrid Welding of 10mm Thick Maraging Steel Plate- A Comparison with Multi-pass MIG Welding”, 2nd International Conference on Advances in Cutting, Welding & Surfacing, Coimbatore, 5-7 August 2015.
15. L. Subashini, E. Anbu Rasu, K. V. Phani Prabhakar, G. Padmanabham, Swati Ghosh Acharyya, “Preliminary Investigation on Laser- MIG Hybrid Welding of Ferritic Martensitic Steels”, International Conference on Applications of Lasers in Manufacturing, New Delhi, 9-11 September, 2015.
16. L. Subashini, K. V. Phani Prabhakar, Swati Ghosh Acharyya, G. Padmanabham, “Laser Hybrid Welding of Thick Plates of High Alloy Steels”, International Institute of Welding-6th Welding Research and Collaboration Colloquium, Hyderabad, 7 – 9, April 2016.

17. "Characterisation of Al- mild steel dissimilar metal weld joints for automobile application", S. Sravanthi, S.G. Acharyya, Phani Prabhakar, G. Padmanabham, at NIT Warangal, National Conference On Advances in Materials Processing and Characterization (NCAMPC) during 4th Jan 2016 to 6th Jan 2016.
18. Sriram Sathaiah, Swathi Ghosh Acharyya, Optimisation of the different stages of homogenization treatment of 6061 Al alloy, at NIT Warangal, National Conference On Advances in Materials Processing and Characterization (NCAMPC) during 4th Jan 2016 to 6th Jan 2016.
19. Fabrication of large area graphene on Ni 200 by using LASER for improved corrosion resistance, Ravi Kiran, Tejaswi Kapuru, S G Acharyya, G Padmanabham, CALM 2015 international conference on Lasers in Manufacturing during 21-23rd September,
20. L. Subashini, K. V. Phani Prabhakar, Swati Ghosh and G. Padmanabham, "Laser Arc Hybrid Welding of 10mm Thick Maraging Steel Plate- A Comparison With Multi-pass MIG Welding", Proceedings of the 2nd International Conference On Advances In Cutting, Welding & Surfacing , Coimbatore, Page 77- 87, 2015.
21. Swati Ghosh, M Kiran Kumar, Vivekanand Kain, "Studying the Mechanism behind Stress Corrosion Cracking of Non Sensitized 304L Austenitic Stainless Steel", Proceeding of Stainless Steel Centenary Symposium (SSCS), Mumbai, August 12-14, 2013.
22. Swati Ghosh Acharyya, H. Agarwal, V. Kain and G. K. Dey, "Impact of Surface Finishing on the Microstructure and Electrochemical Nature of 304L Stainless Steel", Proceedings of ELAC, 2013.
23. Swati Ghosh , M Kiran Kumar, Vivekanand Kain, "The effect of surface working on the high temperature oxidation behavior of 304L stainless steel", proceedings of CORCON 2011, Mumbai, September 28-30, 2011.
24. M. Kiran Kumar, Swati Ghosh and Vivekanand Kain, "Controlled Distance Electrochemistry (CDE) for High Temperature Oxidation Studies in Low Conducting Electrolytes - Application to Stainless Steels and Zirconium Alloys", proceedings of ISEAC 2011, Goa, December 7-10, 2011.
25. S. Roychowdhury, Swati Ghosh, V. P. S. Rana and V. Kain, "Stress Corrosion Cracking and embrittlement related failures in stabilized stainless steels", Proceedings of CORCON 2010, Goa, September 23-26, 2010.
26. Swati Ghosh and Vivekanand Kain, "Understanding the effect of surface machining of 304L stainless steel by in-situ electrochemical study at high temperature and pressure", Proceedings of Electrochem-2010: Electrochemistry and Sustainability, Telford, UK from September 14 - 15, 2010.
27. Swati Ghosh, Vivekanand Kain, Vivek Mittal and S. K. Baveja, "Effect of residual stress and strain generated during manufacturing process on the stress corrosion cracking susceptibility of austenitic stainless steel", Proceedings of the conference Corrosion, NACE International, Houston, 14-18, March, 2010.

28. Kiran Kumar, Swati Ghosh, Sneha Rhode, Vivekanand Kain, Saurabh Goverdhan, Ved Singh and R. S. Soni, "Corrosion behaviour of stainless steel 304L and 304L NAG in nitric acid environment - Effect of cold work", proceedings of ISAS-2009 at IGCAR, Chennai, September 2009.
29. Swati Ghosh and Vivekanand Kain, "Effect of microstructural changes induced by different stages of fabrication on chloride stress corrosion cracking susceptibility of AISI 304L at ambient temperature", proceedings of Environmentally assisted cracking, Vadodara, 6-9th December, 2009.
30. M. Kiran Kumar, Krishna Gaonkar, Swati Ghosh and Vivekanand Kain, "Characterization of magnetite layer formed on carbon steel surface exposed to hot conditioning environment of PHWRs - actual and simulated", proceedings of Environmentally assisted cracking, Vadodara from 6-9 December, 2009.
31. Swati Ghosh , V. Kain, A. Ray, H. Roy, S. Sivaprasad, S. Tarafder, K. K. Ray, "Sensitization induced deterioration in fracture toughness of 304LN austenitic stainless steel", Proceedings of the 12 International conference on fracture, held at Ottawa, Canada from July 12 - 17, 2009.
32. K. K. Ray, H Roy, A Bhattacharyya, Swati Ghosh, N. Parida, S. Tarafder, S. Sivaprasad, C.Das, A Bhaduri, V. Kain, B. P. Sharma, "Fracture toughness of stainless steels and their weldments", proceedings of ISAS-2007, Chennai, 11 April 2007.
33. Swati Ghosh , S. Roychowdhury, V. Kain, P.V. A. Padmanabhan, and K.K. Ray, "Plasma sprayed yttria stabilised zirconia coating to guard stainless steels against intergranular corrosion", proceedings of International seminar on 'Prospects, Problems and Potential of Coated Steels', Jamshedpur, 14-16 February 2008.
34. Swati Ghosh , S. Roychowdhury, V. Kain, P.V. A. Padmanabhan, K.K. Ray and B. P. Sharma, "Plasma Spray Coating of YSZ to Prevent Stress Corrosion Cracking of Austenitic Stainless Steels", proceedings of Advanced Nuclear Materials, BARC, Mumbai, 12-14 December 2006.