

## 1. Scientist/Officers Bio-data



- a. Name: **Debajyoti Sen**
- b. Qualification: **B.Tech in Mechanical Engineering**
- c. Designation: **Technical Officer-D**
- d. Contact information : **Centre for Engineered Coatings, 04024452342, 9440953545, dsen@arci.res.in**
- e. Experience: 22 years
- f. Research Areas of Interest: **Surface Engineering (Detonation Spray Coating, EBPVD Coating), Tribological properties evaluation.**
- g. List of Journal Publications:
  - ✓ ***“Thermal spray coating of AlN coating utilizing Detonation spray coating”, Journal of Material Research,17 (10) 2002***
  - ✓ ***“Coatability and Characterization of Fly Ash Deposited on Mild Steel by Detonation Spray” Journal of thermal spray technology,12 (1) 2003***
  - ✓ ***“The Tribological behaviour of Detonation spray coating: The importance of coating process parameters”, Journal of Wear, 258, 2004***
  - ✓ ***“Influence of Grit Blasting on the Roughness and the Bond Strength of Detonation Sprayed Coating”, Journal of Thermal Spray Technology Volume 19(4) , June 2010***
  - ✓ ***“The tribological behaviour of detonation sprayed TiMo (CN) based cermet coatings “ Int. Journal of Refractory Metals & Hard Materials 28 (2010) 71–81***
- h. List of Patents: ---
- i. Conference proceedings:

- ✓ **“Detonation Coating Process”, Transactions of the Powder Metallurgy Association of India, 1993, Vol.20, p. 1-5**
- ✓ **“Detonation Coating Process: Some Selected Case Studies”, Transactions of the Powder Metallurgy Association of India, 1994, Vol.21, p.74-80.**
- ✓ **“Wear Resistant Coating of Turbine Blades by Detonation Gun”, Transactions of the Powder Metallurgy Association of India, 1995, Vol.22, p.56-59.**
- ✓ ***“Detonation Coating Process of LP Turbine blades-A Statistical Quality Control Approach”, Transactions of the Powder Metallurgy Association of India, 1996, Vol.23***
- ✓ ***“Tribological Behaviour of Thermal Sprayed Coatings”, Proceedings of the XI<sup>th</sup> Surface Modification Technologies, , Published in The Institute of Materials, London, 1998,p.872-886.***
- ✓ ***“The influence of powder particle velocity and temperature on the property of Cr<sub>3</sub>C<sub>2</sub>-25NiCr coating obtained by detonation-gun”, Proceedings of the 15<sup>th</sup> International Thermal Spraying Conference, Nice, France, 1998. P.385-393.***
- ✓ ***“The Influence of Teflon Additions on the Properties of WC-Co Coatings Obtained by Detonation Gun Coating”, Proceedings of the 13<sup>th</sup> Surface Modification Technologies, Published in the Institute of Materials, London, 1999, p.71-81.***
- ✓ ***“The Influence of Powder characteristics on the properties of Detonation sprayed Cr<sub>3</sub>C<sub>2</sub>-25NiCr coating”, Proceedings of the 17<sup>th</sup> International Thermal Spraying Conference ITSC conference Montreal , Canada,May,2000***
- ✓ ***“Influence of Laser Glazing on the Characteristic and tribological Performance of Plasma and Detonation Sprayed WC-Co Coating “, proceedings Published in ITSC-2001, Singapore***
- ✓ **“Development of Nano Tungsten carbide -12 Cobalt powder by mechanical milling & its coating characteristics”, published in proceeding of International Powder metallurgy conference at NOIDA, U.P. 2007**

j. Contribution to Books:

k. Affiliation to Professional societies:

l. Awards & Honors: ***University “ GOLD MEDAL” for securing first position in order of merit in “Diploma in computer integrated manufacturing” in 2009 from “INDIRA GANDHI NATIONAL OPEN UNIVERSITY”***