

**Curriculum Vitae**  
**PARTHA PRATIM BANDYOPADHYAY, Professor**  
 ++ 91 3222 282950 (O)  
[ppb@mech.iitkgp.ac.in](mailto:ppb@mech.iitkgp.ac.in)

Website: <https://sites.google.com/site/ppbsurface/>

**EDUCATION:** Ph.D. (IIT Kharagpur, 2000), M.Tech (IIT Kharagpur, India 1992),  
 B.Prod.E. (1989), Jadavpur University, Calcutta, India)

**AREA OF SPECIALISATION:** Surface Technology

**TEACHING:** Theory of Machining (PG course), Surface Engineered Materials Technology (dual degree course)  
 Machining and Machine Tools (UG course), Introduction to manufacturing (Lab), Machine tools  
 and machining lab.

**RESEARCH GUIDANCE:** Postdoc – 2 working + 1 completed, PhD (13 awarded + 7 working ); M Tech: 25

**CURRENT RESEARCH ACTIVITIES**

- Micro and nanofinishing of thermally sprayed coatings
- Carbon nanotube reinforced thermally sprayed coatings
- Thermally sprayed coatings with solid lubricant additive
- Splat-substrate interaction
- Prediction of wear in thermally sprayed coating

**FACILITIES OF THE LABORATORY**

- Metco 9 M, 80 kW APS facility
- DPV evolution and Accuraspray particle monitors
- Facility for metallography, microscopy, microhardness, scratch test, tribometry including Anton Paar high temperature tribometer, ball milling, SEM and XRD
- A well-equipped workshop
- Central facilities for FE-SEM, TEM, HRTEM, EPMA, Nanoindenter etc.

**MAJOR SPONSORED PROJECTS**

Role	Project title	Sponsor	Duration	Fund
PI	CNT reinforced Cr <sub>3</sub> C <sub>2</sub> -Ni-Cr coatings for wear resistance at high temperature	AR&DB	May 2026- Apr 2029	90.62 lakh
Co PI	Thermal Spray Coatings for EMI/EMC shielding of Infrared windows/domes	RCI, DRDO	May 2026- Apr 2028	26.17 lakh
PI	Investigating the influence of heat treatment on plasma-sprayed carbon nanotube reinforced oxide coating	DST	April 2024- March 2026	26.74 lakh
PI	Plasma sprayed coatings to tune the thermo-optical properties of spacecraft components	ISRO	Mar 24- Feb 27	7.48 lakh
PI	Thermally sprayed CNT reinforced WC-Co Coating for Aero Engine Stage III & IV compressor discs.	AR&DB	Sep 2020- Aug 2025	324.97 lakh
Foreign collab'	Measurement of residual stress in plasma sprayed ceramic coatings using FTIR and Raman microscopy.	Swiss Nat. Sc Found'	May- July, 2023	10.5 lakh
PI	Thermally sprayed cermet coatings	DST	Dec 22 - Jan 24	20.25 lakh
Co PI	Thermal Sprayed Heat Resistant Coatings for Thrust Chambers of Semi-Cryoc Rocket Eng.	ISRO	Oct 24- sept 26	29.44 lakh
Foreign collaborator	Measurement of residual stress in plasma sprayed yttria stabilized zirconia splats using micro-Raman spectroscopy	Swiss Nat. Sc Found'	May- July, 2018	6.5 lakh
PI	Deposition of Thermally Sprayed WC-Co Coating with	ARDB	Nov 2015-	23.75

PI	Carbon Nanotube Reinforcement: A Feasibility Study Development and Performance Evaluation of Thermally Sprayed Ball Milled Diamond Metal Composite for Bearing Surface Application	DST	March 2017 Feb 13- Mar 17	lakh 44 lakh
Co-PI	Study of High Speed Deep Grinding of Burn Resistant Ti Alloy & Ceramics Using Monolayer Electroplated Super- Abrasives Wheel	ARDB	Feb 16- Jan 19	151.77 lakh
PI	Adhesion in cold spraying	INSA-DFG	May-July, 15	4.5 lakh
Foreign collab.	Investigation of Interfacial Bonding in Thermally Sprayed Coatings using Glow Discharge Optical Emission Spectroscopy (GDOES) Depth Profiling	Swiss Nat. Sc. Found'	May-July 2012	5 lakh
PI	Measurement of residual stress in thermally sprayed ceramic splats using Raman spectroscopy	DST-Swiss Nat. Sc. Found	Dec-2010	6 lakh
Co-PI	Intelligent data mining for forward and reverse modelling of manufacturing processes	DST-SERC	May 2008- April 2011	15 lakh
PI	Hard chrome replacement solution	ISIRD	March 06- Feb 09	5 lakh
Co-PI	Upgrading existing plasma spray facility with particle monitoring capability	DST-FIST	Mar 08- Mar 13	25 lakh
Co-PI	Computer Assisted Wire Cut EDM laboratory	DST-FIST	Mar 03- Feb 08	40 lakh

#### INTERNATIONAL

- Dec 2024. SSHN visiting scientist programme to the Institut Européen des Membranes (IEMM, ENSCM UMR5635), University of Montpellier, France.
- May-July 2023, School of Engineering and Architecture Fribourg, Switzerland, Measurement of residual stress in plasma sprayed ceramic coatings using FTIR and Raman microscopy. Swiss National Sc. Foundation Grant.
- May-July, 2018, School of Engineering and Architecture Fribourg, Switzerland, Measurement of residual stress in splats using Raman Spectroscopy. Swiss National Sc. Foundation Grant.
- May-July, 2015, Helmut Schmidt Univ, Humburg, Germany, Adhesion in Cold Spraying, INSA-DFG Research grant.
- December, 2014, Univ of Sc. and Tech. Lille, 1, France, Nanoindentation on thermally sprayed coatings.
- May – July, 2012, Swiss Nat. Sc. Foundation Visiting Fellow, BFH Biel, Switzerland. Research topic: GDOES depth profiling of thermally sprayed coatings.
- May – June, 2011, Visiting professor, Univ of Lille 1, France. Research topic: instrumented indentation based property measurement of thermally sprayed coatings.
- Nov- Dec, 2010, Visiting Scientist, EMPA Thun, Switzerland. Research topic: Residual stress measurement in isolated thermally sprayed splats using micro Raman and FTIR microscopy.
- May – June, 2010, Visiting professor, Univ of Lille 1, France. Research topic: estimation of coating adhesion by measuring interfacial fracture toughness.
- August – Dec, 2009, Visiting Scientist, EMPA Thun, Switzerland. Topic: Splat substrate interaction
- May – July, 2008: Visiting Scientist, EMPA Thun, Switzerland. Topic: Tribo-characterisation of Ti- Cr-Si-O coatings
- May – July, 2007: Visiting Scientist, EMPA Thun, Switzerland. Topic: Processing of Ti-Cr-Si- O quasicrystal coatings.
- May – July, 2006: Visiting Scientist, Washington State Univ, Pullman, USA. Topic: laser clad alumina and zirconia on steel
- Sep 2002 – Jan 2004: Research Assoc. EMPA Thun, Switzerland. Topic: Vacuum Plasma Sprayed Ni-Ti-Zr quasicrystal coatings.

#### ADMINISTRATION:

1. Professor in Charge of Training Workshop
2. PhD coordinator, Department of Mechanical Engineering (2015-2025)

### **List of publications**

**Pedagogic Material:** Developed a 40 lecture pedagogic material on Machine Tools and Machining

### **Book Chapters**

- 8 Saha, S., Sikdar, S., Kumar, A.S., Deb, S., **Bandyopadhyay, P.P.** (2023). Dependency of Machining Forces on Process Parameters During Sustainable MQL-Based Micro-milling of D2 Steel. In: Bhattacharyya, B., Mathew, J., Saravanakumar, N., Rajeshkumar, G. (eds) *Advances in Micro and Nano Manufacturing and Surface Engineering. Lecture Notes in Mechanical Engineering*. Springer, Singapore., pp 119-128, [https://doi.org/10.1007/978-981-19-4571-7\\_11](https://doi.org/10.1007/978-981-19-4571-7_11)
- 7 Rajib Das, Vibhav Ambardekar\*, **Partha Pratim Bandyopadhyay**, Titanium Dioxide and its Applications in Mechanical, Electrical, Optical and Biomedical Fields, in **Titanium Dioxide**, 1<sup>st</sup> Edition, Editor: Dr. Hafiz Muhammad Ali, ISBN [978-1-83969-476-9](https://doi.org/10.1007/978-1-83969-476-9), IntechOpen 2021 , pp. 1-25.
- 6 Gourhari Ghosh, Mayank Kumar, Ajay M. Sidpara\*, and **Partha P. Bandyopadhyay**, Tribological aspects of different machining processes, in *Machining and Tribology 1st Edition. Processes, Surfaces, Coolants, and Modeling*, Editor: Alokesh Pramanik. Paperback ISBN: 9780128198896, Elsevier **2021**, pp. 213-238.
- 5 Gourhari Ghosh, Ajay Sidpara\* and **P P Bandyopadhyay**, Post processing of HVOF sprayed WC-Co coating to enhance its performance, In: Hashmi, Saleem and Choudhury, Imtiaz Ahmed (eds.). *Encyclopedia of Renewable and Sustainable Materials*, vol. 1, pp. 658–673, **2020**. Oxford: Elsevier.
- 4 Tynee Bhowmick, Vibhav Ambardekar, Abhishek Ghosh, Moumita Dewan, **Partha Pratim Bandyopadhyay**, Sudip Nag and Subhasish Basu Majumder\*, Multilayered and Chemiresistive Thin and Thick Film Gas Sensors for Air Quality Monitoring, *Multilayer Thin Films - Versatile Applications for Materials Engineering*, Sukumar Basu, IntechOpen ,(January 15th **2020**). DOI: 10.5772/intechopen.89710., pp. 1-47.
- 3 V. Ambardekar, **P.P. Bandyopadhyay\***, and S.B. Majumder, Atmospheric Plasma Sprayed 25 wt.% WO<sub>3</sub>-75wt.% SnO<sub>2</sub> Composite Coating: Investigations on Ethanol and Acetone Sensing Characteristics, *Advances in Micro and Nano Manufacturing and Surface Engineering*, Chapter 64, 711-719, First Online: 01 December **2019**, [https://doi.org/10.1007/978-981-32-9425-7\\_64](https://doi.org/10.1007/978-981-32-9425-7_64), Springer, Singapore, Print ISBN 978-981-32-9424-0, Online ISBN 978-981-32-9425-7
- 2 Gourhari Ghosh, Ajay Sidpara\* and **P P Bandyopadhyay**, Fabrication of Optical Components by Ultraprecision Finishing Processes, in, K Gupta (ed), *Micro and*

Precision Manufacturing, Springer International Publishing AG, ISBN:978-3-319-68800- 8, pp 87-119, 2018.

- 1 V. Bolleddu, V. Racherla, **P.P. Bandyopadhyay\***, Microstructural and tribological characterization of air plasma sprayed alumina–titania coatings in A H Pakseresht (ed) Production, Properties, and Applications of High Temperature Coatings, IGI Global, Hershey, PA, USA, pp. 268-298, 2018 DOI: 10.4018/[978-1-5225-4194-3](https://doi.org/10.4018/978-1-5225-4194-3).ch011, ISBN 9781522541943 (hardcover) |ISBN 9781522541950 (eISBN)

#### Peer Reviewed Journals

Average impact factor 5.52: G Scholar H index – 37, Citations (g-schol): 3587 (15.04.26)

Sl. No.		Impact factor
111	Subham Sarkar and <b>P P Bandyopadhyay *</b> , Effect of in-flight particle parameters on friction and wear characteristics of HVOF-sprayed WC-12Co coatings fabricated from conventional and submicron-sized carbide grits, <b>Wear</b> 592 (2026) 206624 <a href="https://doi.org/10.1016/j.wear.2026.206624">https://doi.org/10.1016/j.wear.2026.206624</a>	6.1
110	S Jha, H Sharma, R Das, G Ghosh, PP Bandyopadhyay, High-Temperature Tribological Performance of Additively Manufactured Inconel 718/Al <sub>2</sub> O <sub>3</sub> Metal Matrix Composite Coatings, Journal of Tribology, ASME, available online, April 2026, P 1-56 <a href="https://doi.org/10.1115/1.4071695">https://doi.org/10.1115/1.4071695</a>	3.0
109	Navneet K. Singh, S. V. V. N. Siva Rao, Vijay Kumar, Gidla Vinay, Harpreet Singh, <b>P P Bandyopadhyay*</b> , Advancing Wear Resistance of HVOF-Sprayed WC-NiCr Coatings through Laser Remelting, accepted in <b>Journal of Thermal Spray Technology</b> , available online March 2026. <a href="https://doi.org/10.1007/s11666-026-02190-w">https://doi.org/10.1007/s11666-026-02190-w</a>	3.3
108	Vivekananda Pal, <b>P.P. Bandyopadhyay</b> , Venkata Naga Vamsi Munagala , Improving solid lubricant phase retention in plasma sprayed coatings through electroless Ni–P deposition on lubricant powders, <b>Surface and Coating Technology</b> , 525 (2026) 133314, <a href="https://doi.org/10.1016/j.surfcoat.2026.133314">https://doi.org/10.1016/j.surfcoat.2026.133314</a>	6.1
107	Rajib Das and <b>P.P. Bandyopadhyay*</b> , Influence of load, sliding speed, and temperature on the tribological behavior of plasma sprayed BaF <sub>2</sub> -doped YSZ composite coatings, <b>Journal of the European Ceramic Society</b> ,45 (2025) 117476. <a href="https://doi.org/10.1016/j.jeurceramsoc.2025.117476">https://doi.org/10.1016/j.jeurceramsoc.2025.117476</a>	6.2

- 106 Subham Sarkar, Rajib Das and **P P Bandyopadhyay\***, Mathematical modelling and validation of the mechanical properties of HVOF-sprayed WC-12Co coatings considering the phase composition and defects generated at different process parameters, **Surface and Coating Technol.**, 494(2024) 131433, [10.1016/j.surfcoat.2024.131433](https://doi.org/10.1016/j.surfcoat.2024.131433) 6.1
- 105 Navneet Singh, Harpreet Singh, **P P Bandyopadhyay\*** Effect of Laser Remelting on the Microstructural and Mechanical Properties of High-Velocity Oxy-Fuel (HVOF)-sprayed WC-NiCr coating, accepted in the **J Thermal Spray technol**, 33, 1484–1495 (2024). <https://doi.org/10.1007/s11666-024-01785-5> 3.3
- 104 Subham Sarkar, **P P Bandyopadhyay\***, Role of carbide grit size and in-flight particle parameters on the microstructure, phases, and nanoscale properties of HVOF sprayed WC- 12Co coatings, **Surface and Coating Technol.**, 484(2024) 130879 <https://doi.org/10.1016/j.surfcoat.2024.130879> 6.1
- 103 Suman Saha, **P P Bandyopadhyay\***, Non-destructive measurement of MUCT in micro-milling using surface topography generated by bi-planer size effects, **Int. J of Mechanical sciences**, 275 (2024) 109332, <https://doi.org/10.1016/j.ijmecsci.2024.109332> 9.4
- 102 Rajib Das, Subham Sarkar, **P P Bandyopadhyay\***, Effect of spray parameters on the microstructure, solid lubricant phase retention, and high-temperature tribological performance of plasma sprayed YSZ/BaF2 composite coatings, **Journal of the European Ceramic Society**, 44 (2024) 5166-5180. 6.2
- 101 Suman saha, Sainul Islam, Sankha Deb, **Partha Pratim Bandyopadhyay\***, Influence of tool wear on chip-like burr formation during micro-milling, and image processing based measurement of inwardly-deflected burrs, **Wear**, 530-531 (2023) 205024. <https://doi.org/10.1016/j.wear.2023.205024> 6.1
- 100 Tina Ghara and **P. P. Bandyopadhyay\***, Splat Shape and Pore Size Distribution in Plasma Sprayed Alumina Coating at Various In-flight Particle Conditions, **J Therm Spray Tech**, available online, **May 2023** 3.3 <https://doi.org/10.1007/s11666-023-01609-y>
- 99 Energy balance model to predict the critical edge radius for adhesion formation with tool wear during micro-milling, Suman Saha , A. Sravan Kumar, Ganesh Malayath , Sankha Deb , **P P Bandyopadhyay\***, **Journal of Manufacturing Processes** 93 (2023) 219–238. <https://doi.org/10.1016/j.jmapro.2023.03.034> 6.8

- 98 Suman Saha, Sankha Deb, **P P Bandyopadhyay\***, Tool wear induced burr formation and concomitant reduction in MQL wetting capability in micro-milling, **International Journal of Mechanical Sciences**, 245 (2023),108095; <https://doi.org/10.1016/j.ijmecsci.2022.108095> 9.4
- 97 Gourhari Ghosh, A Sidpara and **P P Bandyopadhyay**, Performance improvement of magnetorheological finishing using chemical etchant and diamond-graphene based magnetic abrasives, **Precision Engineering**, 79 (2023) 221–235. <https://doi.org/10.1016/j.precisioneng.2022.10.008> 3.7
- 96 Akash Chowdhury, A Bhattacharya, **P. P. Bandyopadhyay\***, Effect of polymer substrate elasticity on splat formation during thermal spraying, available online in **Surface and Coating Technology**, Volume 447, 15 October 2022, pp- 128843 , <https://doi.org/10.1016/j.surfcoat.2022.128843> 6.1
- 95 **Tina Ghara and P P Bandyopadhyay\***, Adhesion in Thermally Sprayed Coatings: An Insight from Interfacial Residual Stress, available online in **Journal of the American ceramic Society**, 105(12) (2022) 7132-7148 <https://doi.org/10.1111/jace.18713> 3.8
- 94 Rajib Das and **P P Bandyopadhyay\***, Processing of solid lubricant doped ceramic powder feedstock using heterocoagulation technique for plasma spraying, **Ceramic International**, 48 (2022) 25592–25609 <https://doi.org/10.1016/j.ceramint.2022.05.239> 5.6
- 93 Tina Ghara and **P P Bandyopadhyay\***, Mechanical Properties and Residual Stress Depth Profiles of Plasma Sprayed Ceramic Coatings Deposited under Comparable Particle Temperature and Velocity, accepted in **Journal of Thermal Spray Technology**, (2022)31:1889–1905, <https://doi.org/10.1007/s11666-022-01412-1> 3.3
- 92 Tina Ghara and **P P Bandyopadhyay\***, Understanding the Role of In-flight Particle Temperature and Velocity on the Residual Stress Depth Profile and Other Mechanical Properties of Atmospheric Plasma sprayed Al<sub>2</sub>O<sub>3</sub> Coating, **Journal of the European Ceramic Society**, 42 (2022) 4353- 4368. <https://doi.org/10.1016/j.jeurceramsoc.2022.04.019> 6.2
- 91 V. Ambardekar, T. Bhowmick, **P.P.Bandyopadhyay**, Understanding on the hydrogen detection of plasma sprayed tin oxide/tungsten oxide (SnO<sub>2</sub>/WO<sub>3</sub> ) sensor, **International Journal of Hydrogen Energy**, (2022), 47 (33) (2022) 15120-15131 <https://doi.org/10.1016/j.ijhydene.2022.03.005> 8.3
- 90 Suman Saha, Sankha Deb, **Partha Pratim Bandyopadhyay\***, Shadow zone in MQL application and its influence on lubricant deficiency and machinability during micro-milling, **International Journal of Mechanical Sciences**, 220 9.4

(2022) 107181 <https://doi.org/10.1016/j.ijmecsci.2022.107181>

- 89 Tina Ghara, Soumitra Paul, **Partha Pratim Bandyopadhyay\***, Analytical and experimental analysis of indentation depth upon abrasive impact on metallic substrates, *Materials Chemistry and Physics*, 280 (2022) 125865. <https://doi.org/10.1016/j.matchemphys.2022.125865> 4.7
- 88 Suman Saha, Sankha Deb, **P P Bandyopadhyay\***, Precise measurement of worn-out tool diameter using cutting edge features during progressive wear analysis in micro-milling, *Wear*, 4888-489 (2022), 204169 6.1
- 87 Suman Saha, Sankha Deb, **P P Bandyopadhyay\***, Progressive wear based tool failure analysis during dry and MQL assisted sustainable micro-milling, *International Journal of Mechanical Sciences* 212 (2021) 106844. 9.4
- 86 V. Ambardekar, T. Bhowmick, **P.P.Bandyopadhyay**, S.B.Majumder, Ethanol and acetone sensing properties of plasma sprayed copper oxide coating, *Journal of Physics and Chemistry of Solids*, 160 (2021) 110333. 4.9
- 85 Akash Chowdhury, A Bhattacharya, **P. P. Bandyopadhyay\***, Influence of temperature dependent physical properties on liquid metal droplet impact dynamics, *Journal of Thermal Science and Engineering Applications*, ASME, 14 (May 2021) 051001-6 1.4
- 84 Gourhari Ghosh, A Sidpara and **P P Bandyopadhyay**, Theoretical and experimental investigation of material removal rate in shape adaptive grinding of HVOF sprayed WC-Co coating, *Precision Engineering*, 72 (2021) 627-639 3.6
- 83 Gourhari Ghosh, A Sidpara and **P P Bandyopadhyay**, Theoretical analysis of magnetorheological finishing of HVOF sprayed WC-Co coating, *International Journal of Mechanical Sciences*, 207 (2021) 106629. 9.4
- 82 **Gourhari Ghosh, A Sidpara and P P Bandyopadhyay**, Brittle-ductile transition in compliant finishing of HVOF sprayed hard WC-Co coating, *International Journal of Refractory Metals and Hard Materials*, 99 (2021) 105610 4.6
- 81 V. Ambardekar, T. Bhowmick, **P.P. Bandyopadhyay\***, S.B. Majumder, Understanding on the effect of morphology towards the hydrogen and carbon monoxide sensing characteristics of tin oxide sensing elements, *Int. J Hydrogen energy*, 46 (2021) 23113- 23123. 8.3
80. V.Ambardekar, S.Sahoo, D.K.Srivastava, S.B.Majumder, **P.P.Bandyopadhyay\***, Plasma sprayed CuO coatings for gas sensing and catalytic conversion applications, *Sensors & Actuators: B. Chemical*, 331 (2021) 129404. 7.7
- 79 Biswajit Das, Kumar Sawrav Shiv Brat Singh, **P. P. Bandyopadhyay\*** Tribological 1.5

- behavior of the hardfacing alloys utilized to fabricate the wear parts of excavator bucket, **Transaction of the IMF**, 99(3) (2021) 153-161.
- 78 Gourhari Ghosh , Ajay Sidpara , **P.P. Bandyopadhyay**, Magnetorheological finishing of WC-Co coating using iron-B4C-CNT composite abrasives, **Tribology International**, 155 (2021) 106807 **6.9**
- 77 Biswajit Das, Muvvala Gopinath, Ashish Kumar Nath, **P. P. Bandyopadhyay\***, Online monitoring of thermo cycles during laser remelting of flame sprayed chromia coating in pulsed mode and coating properties, **Optik**, 227 (2021) 166030. **3.1**
- 76 Tina Ghara, S. Paul, **P. P. Bandyopadhyay\***, Effect of Grit Blasting Parameters on Surface and Near-Surface Properties of Different Metal Alloys, **J Thermal Spray Technol.**, (2021) 30:251–269. **3.3**
- 75 Tina Ghara, S Paul and **P P Bandyopadhyay\***, Influence of Grit Blasting on Residual Stress Depth Profile and Dislocation Density in Different Metallic Substrates, **Met & Mat Trans A**, 52A, January 2021, 65-81 **2.5**
- 74 V. Ambardekar, **P.P. Bandyopadhyay\***, S.B. Majumder, Plasma sprayed copper oxide sensor for selective sensing of carbon monoxide, **Material Chemistry and Physics**, 258 (2021) 123966 **4.6**
- 73 Gourhari Ghosh, Ajay Sidpara and **P P Bandyopadhyay**, Experimental and theoretical investigation into surface roughness and residual stress in magnetorheological finishing of OFHC copper, **J Mater. Processing Tech.** 288 (2021) 116899 **7.5**
- 72 S. Kar, A. Sravan Kumar, **P. P. Bandyopadhyay** & S. Paul, Grindability of plasma sprayed thermal barrier coating using super abrasive wheel, **Transaction of the IMF** 98 (3), 144-153, 2020. **1.5**
- 71 S Hazra, **P P Bandyopadhyay**, Tribological properties of plasma sprayed zircon-alumina powder mixture with and without laser re-melting, **Transaction of the IMF** 98 (3), 144-153, 2020. **1.5**
- 70 Suman Saha, Sankha Deb and **P P Bandyopadhyay\***, An analytical approach to assess the variation of lubricant supply to the cutting tool during MQL assisted high speed micromilling, **J Mat Proc. Technol**, 285 (2020) 118783 **7.5**
- 69 Gourhari Ghosh, Ajay Sidpara and **P. P. Bandyopadhyay**, Fabrication of mechanically durable slippery surface on HVOF sprayed WC-Co coating, **Surf. Coat. Technol.**, 394 (2020) 125886 **6.1**
- 68 S. Kar, A. Sravan Kumar, **P. P. Bandyopadhyay** and S. Paul, Grinding of hard and brittle ceramic coatings: Force analysis, **J. Eur. Cer. Soc.**, 40(2020)1453- 1461. **6.2**

- 67 Grindability of plasma sprayed thermal barrier coating using super abrasive wheel, S Kar, AS Kumar, **P P Bandyopadhyay**, S Paul, **Transactions of the IMF** 98 (1), 30-36, **2020** 1.5
- 66 SC Jambagi, **P P Bandyopadhyay\***, Improvement in Tribological Properties of Plasma-Sprayed Alumina Coating upon Carbon Nanotube Reinforcement **Journal of Materials Engineering and Performance** 28 (12), 7347-7358, **2019** 2.0
- 65 V. Ambardekar, **P.P. Bandyopadhyay\***, and S.B. Majumder, Sensing Capability of Air Plasma-Sprayed SnO<sub>2</sub> Coating in the Presence of Hydrogen and Carbon Monoxide, **J. Mat. Eng. and Performance**, (2019) 28:6728–6735. 2.0
- 64 Gourhari Ghosh, Ajay Sidpara and **P. P. Bandyopadhyay**, Understanding the role of surface roughness on the tribological performance and corrosion resistance of WC-Co coating, **Surf. Coat. Technol.** 378 (2019) 125080. 6.1
- 63 Biswajit Das, Pierre Brodard, **P.P. Bandyopadhyay\***, Raman spectroscopy assisted residual stress measurement of plasma sprayed and laser remelted zirconia splats and coatings, **Surface and coating technology**, 378 (2019) 124920 6.1
- 62 V Ambardekar, **P P Bandyopadhyay**, S B Majumder, Hydrogen sensing performance of atmospheric plasma sprayed tin dioxide coating, **International Journal of Hydrogen Energy**, 44(2019) 14092-14104. 8.3
- 61 V Ambardekar, **P P Bandyopadhyay**, S B Majumder, Understanding on the ethanol sensing mechanism of atmospheric plasma sprayed 25 wt. % WO<sub>3</sub>-75 wt. % SnO<sub>2</sub> coating, **Sensors and Actuators B Chemical**, 290 (2019) 414-425. 7.7
- 60 Gourhari Ghosh, A Sidpara and **P P Bandyopadhyay**, An investigation into the wear mechanism of zirconia-alumina polishing pad under different environments in shape adaptive grinding of WC-Co coating, **Wear** 428- 429 (2019) pp 223-236. 6.1
- 59 Biswajit Das, Ashish Nath, **P. P. Bandyopadhyay\***, Scratch resistance and damage mechanism of laser remelted thermally sprayed ceramic coating, **Surface and Coating Technology**, 364 (2019) 157-169. 6.1
- 58 Purnendu Das, S Paul and **P P Bandyopadhyay\***, Tribological behaviour of HVOF sprayed diamond reinforced bronze coatings, **Diamond and related materials**, 93(2019)16-25. 5.1
- 57 Purnendu Das, S Paul and **P P Bandyopadhyay\***, Tribological behaviour of plasma sprayed diamond reinforced molybdenum coatings, **Int J of refractory and hard mater.**, 78 (2019) 350-359. 4.6
- 56 SC Jambagi, A Agarwal, N Sarkar, **PP Bandyopadhyay\***, Plasma-sprayed titania and alumina coatings obtained from feedstocks prepared by 2.0

heterocoagulation with 1 wt.% carbon nanotube, **Journal of Materials Engineering and Performance** 27 (5), (2018), 2364-2372

- 55 Purnendu Das, S Paul and **P P Bandyopadhyay\***, Plasma sprayed diamond reinforced molybdenum coatings, **J. Alloys and Compounds**, 767(2018) 448-455. 6.3
- 54 Deviprasanna Mohanty, Simanchal Kar, Soumitra Paul, **P P Bandyopadhyay\***, Carbon nanotube reinforced HVOF sprayed WC-Co coating, **Materials and Design**, 156 (2018) 340-350. 7.9
- 53 Gourhari Ghosh, Ajay Sidpara and **P P Bandyopadhyay**, Comprehensive study to evaluate the lifespan of flexible polishing pads by 3D surface characterization technique, **Measurement**. 127(2018) 29-41 5.6
- 52 V.Ambardekar, **P. P. Bandyopadhyay**, S. B. Majumder, Atmospheric plasma sprayed SnO<sub>2</sub> coating for ethanol detection, **J Alloys and Compounds**, 752(2018) 440-447. 6.3
- 51 Biswajit Das, Muvvala Gopinath, Ashish Kumar Nath, **P. P. Bandyopadhyay\***, Effect of cooling rate on residual stress and mechanical properties of laser remelted ceramic coating, **Journal of the European Ceramic Society**, 38(2018) 3932-3944. 6.2
- 50 Purnendu Das, S Paul and **P P Bandyopadhyay\***, HVOF sprayed diamond reinforced nano-structured bronze coatings, **J Alloys and Compounds**, 746 (2018) 361-369. 6.3
- 49 Biswajit Das, A K Nath and **P P Bandyopadhyay\***, Online monitoring of laser remelting of plasma sprayed coatings to study the effect of cooling rate on residual stress and mechanical properties, **Ceramic International**, 44(7) (2018)7524-7534. 5.6
- 48 Gourhari Ghosh, Ajay Sidpara, **P.P. Bandyopadhyay**, High efficiency chemical assisted nanofinishing of HVOF sprayed WC-Co coating, **Surface and Coating Technology**, 334 (2018) 204–214. 6.1
- 47 Simanchal Kar, **P P Bandyopadhyay \*** and S. Paul, High speed and precision grinding of plasma sprayed oxide ceramic coatings, **Ceramics International**, 43 (2017) 15316-15331. 5.6
- 46 Simanchal Kar, **P P Bandyopadhyay \*** and S. Paul, Effect of arc-current and spray distance on elastic modulus and fracture toughness of plasma sprayed chromium oxide coatings, **Friction** 6 (4), 387-394, 2017, doi.org/10.1007/s40544-017-0166-6 8.2
- 45 Jambagi, S. C. and **Bandyopadhyay, P.P\***, 2017. Scratch Resistance of Plasma Sprayed Carbon Nanotube Reinforced Splats and Coatings. **Journal of the European Ceramic Society**, 37 (2017) 2235–2244. 6.2
- 44 Sourabh Paul, S Paul, **P P Bandyopadhyay**, Minimisation of specific cutting energy and radial thrust force in turning of AISI 1060 steel, accepted in the **Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture**, vol. 233, 2: pp. 426-442. (2017) DOI: 10.1177/0954405416683431 2.2

- 43 S Jambagi, S Kar, P Brodard, **P P Bandyopadhyay\***, Characteristics of plasma sprayed coatings produced from carbon nanotube doped ceramic powder feedstock, **Materials and Design**, 112 (2016) 392–401 7.9
- 42 V Bolleddu, V Racherla and **P P Bandyopadhyay\***, Characterization of Air Plasma Sprayed Yttria Stabilized Zirconia Coatings deposited with Nitrogen, **Int J Adv Manuf. Technol.**, (2017) 90:3437–3449, 10.1007/s00170- 016-9613-1 3.1
- 41 S Kar, S Paul and **P.P. Bandyopadhyay\***, Precision superabrasive grinding of plasma sprayed ceramic coatings, **Ceramics International**, 42 (2016) 19302–19319. 5.6
- 40 S Kar, S Paul and **P.P. Bandyopadhyay\***, Processing and characterisation of plasma sprayed oxides: Microstructure, phases and residual stress, **Surface and coating technology**, 304 (2016) 364–374. 6.1
- 39 S Hazra and **P P Bandyopadhyay\***, The effect of parametric variation on the mullite content of plasma sprayed zircon-alumina powder mixture, **Surface and Coatings Technology**, 302(2016)227-237 6.1
- 38 Purnendu Das, Soumitra Paul, **P.P. Bandyopadhyay\***, Preparation of diamond reinforced metal powders as thermal spray feedstock using ball milling, **Surface & Coatings Technology** 286 (2016) 165–171 6.1
- 37 V. Bolleddu, V. Racherla, **P.P. Bandyopadhyay\***, Comparative study of air plasma sprayed and high velocity oxy-fuel sprayed nanostructured WC- 17wt%Co coatings, **Int J Adv Manuf. Technol.**, 84(2016) 1601-1613. 3.4
- 36 S Hazra, J Das and **P P Bandyopadhyay\***, Synthesis of mullite-based coatings from alumina and zircon powder mixtures by plasma spraying and laser remelting, accepted in **Mat. Chem and Phys** 154 (2015) 22-29. 4.7
- 35 S Jambagi, N Sarkar and **P P Bandyopadhyay\***, Preparation of carbon nanotube doped ceramic powders for plasma spraying using heterocoagulation method, **Journal of the European Ceramic Society** 35 (2015) 989–1000 6.2
- 34 V. Bolleddu, V. Racherla, **P.P. Bandyopadhyay\***, Microstructural and tribological characterization of air plasma sprayed nanostructured alumina– titania coatings deposited with nitrogen and argon as primary plasma gases, **Material and Design**, 59 (2014) 252- 263. 7.7
- 33 V Bolleddu, V Racherla, **P P Bandyopadhyay\***, Microstructural Characterization of Plasma Sprayed Conventional and Nanostructured Coatings with Nitrogen as Primary Plasma Gas, **Surface and Coating technology**, 235 (2013) 424- 432. 6.1
- 32 **Bandyopadhyay, P. P\***, Chicot, D., Kumar, C. S, Decoopman, X., Lesage, J: Influence of sinking-in and piling-up on the mechanical properties determination by indentation: A case study on rolled and DMLS stainless steel, **Material Science and Engineering A** , 576 (2013) 126–133 7.0

- 31 MS Kaiser, S Datta, **P P Bandyopadhyay**, A Guha, A Roychowdhury, MK Banerjee, Effect of Grain Refinement Through Minor Additions of Scandium and Zirconium on the Machinability of Al–Mg Alloys, **Journal of The Institution of Engineers (India): Series D**, 5 (2013) 1-8 -
- 30 **P.P. Bandyopadhyay\***, D. Chicot, B. Venkateshwarlu, V. Racherla, X. Decoopman, J. Lesage, Mechanical Properties of Conventional and Nanostructured Plasma Sprayed Alumina Coatings, **Mechanics of Materials** 53 (2012) 61-71. 4.1
- 29 M. Sebastiani, G. Bolelli, L. Lusvarghi, **P.P. Bandyopadhyay**, E. Bemporad, High Resolution Residual Stress Measurement on Amorphous and Crystalline Plasma Sprayed Single Splats, **Surface and Coatings Technology** 206 (2012) 4872–4880 6.1
- 28 Somak Datta, D.K. Pratihar and **P.P. Bandyopadhyay**, Modeling of Input Output Relationships for a Plasma Sprayed Coating Process Using Soft Computing Tools, **Applied Soft Computing** 12 (2012) 3356–3368 6.6
- 27 Somak Datta, D.K. Pratihar and **P.P. Bandyopadhyay**, Hierarchical Adaptive Neuro Fuzzy Inference Systems Trained by Evolutionary Algorithms to Model Plasma Spray Coating Process, **Journal of Intelligent & Fuzzy Systems**, 24(2013) 355 -362 1.0
- 26 Somak Datta & D K Pratihar and **P P Bandyopadhyay**, Modeling of Plasma Spray Coating Process Using Statistical Regression Analysis, **The International Journal of Advanced Manufacturing Technology** 65 (2013) 967 - 980 3.1
- 25 S Hazra, Kazi Sabiruddin and **P P Bandyopadhyay\***, Plasma and HVOF Sprayed WC-Co Coatings as Hard Chrome Replacement Solution, **Surface Engineering**, 28 (1) 37-43, 2012. 2.6
- 24 S Hazra and **P P Bandyopadhyay\***, Scratch Induced Failure of Plasma Sprayed Alumina Based Coatings, **Materials and Design**, 35 (2012) 243-250 7.9
- 23 P Chattopadhyay, S Chattopadhyay, N C Das, **P P Bandyopadhyay\***, Impact of Carbon Black Substitution by Organomodified Clay upon Tribological Properties of Ternary Rubber Composites, **Materials and Design** 32 (2011) 4696–4704 7.9
- 22 Kazi Sabiruddin and **P P Bandyopadhyay\***, Scratch Induced Damage in Alumina Splats Deposited on Bond Coats, **Journal of Material Processing Technology**, 211 (4) 2011, 553-562. 7.5
- 21 Kazi Sabiruddin, Geovanni Bolelli, Luca Lusvarghi and **P P Bandyopadhyay\***, Variation of Splat Shape with Processing Conditions in Plasma Sprayed Alumina Coatings, **Journal of Material Processing Technology**, 211 (3) 2011, 450 – 462. 7.5
- 20 Kazi Sabiruddin, J Joardar and **P P Bandyopadhyay\***, Analysis of Phase Transformation in Plasma Sprayed Alumina Coatings Using Rietveld Refinement, **Surface and Coating Technology**, 204 (2010) 3248–3253. 6.1
- 19 G Bolelli, Kazi Sabiruddin, L. Lusvarghi, E. Gualtieri, S. Valeri, **P. P. Bandyopadhyay\***, FIB Assisted Study of Plasma Sprayed Splat-Substrate 6.1

- Interfaces: NiAl-Stainless Steel and Alumina-NiAl Combinations, **Surface and Coating Technology**, 205 (2010) 363 – 371.
- 18 E. E. Balić, Mousab Hadad, **Partha P. Bandyopadhyay** and J Michler, Fundamentals of Adhesion of Thermal Spray Coatings: Adhesion of Single Splats, **Acta Materialia**, 57 (19), 5921 – 5926, **2009** **9.3**
  - 17 M Hadad, **P.P. Bandyopadhyay** and J Lesage, Tribological Properties of Thermally Sprayed Ti-Cr-Si-O coatings, **Wear**, 267 (2009) 1002-1008. **6.1**
  - 16 K Poorna Chander, Meghanshu Vashista, Kazi Sabiruddin, S Paul and **P.P. Bandyopadhyay\***, Effects of Grit Blasting on the Surface Properties of Steel Substrates, **Materials and Design**, 30(2009) 2895-2902. **7.9**
  - 15 **P P. Bandyopadhyay\***, Mousab Hadad, Christian Jaeggi and St Siegmann, Processing and Characterisation of Thermally Sprayed Ti-Cr-Si-O Coatings, **Surface and Coating Technology**, V 203, pp. 35 – 45, **2008**. **6.1**
  - 14 **P P Bandyopadhyay\*** and S Siegmann, An Investigation of the Effect of Processing Conditions on the Microstructure of Vacuum Plasma Sprayed Ti – Zr– Ni Quasicrystal Coating, **Journal of Coating Technology and Research**, 5 (3) 379 – 383 , **2008** **2.8**
  - 13 S Siegmann, P Kern, L Rohr and **P.P. Bandyopadhyay**, Tribological and Corrosion Behaviour of Vacuum Plasma Sprayed Ti-Zr-Ni Quasicrystalline Coating, **Journal of Thermal Spray Technology**, 16(5) **2007**, pp. 947 – 953. **3.3**
  - 12 **P P Bandyopadhyay**, B Vamsi Krishna, Susmita Bose and Amit Bandyopadhyay, Compositionally Graded Aluminum Oxide Coatings on Stainless Steel Using Laser Processing, **Journal of American Ceramic Society**, 90 [7] **2007**, pp. 1989–1991 **3.8**
  - 11 V K Balla, **Partha P Bandyopadhyay**, Susmita Bose and Amit Bandyopadhyay, Compositionally Graded Yttria Stabilized Zirconia Coating on Stainless Steel Using Laser Engineered Net Shaping (LENS□), **Scripta Materialia**, 57 (2007) pp. 861 - 864. **5.6**
  - 10 **P P Bandyopadhyay\*** and S Siegmann, (2005): Friction and Wear Behavior of Vacuum Plasma-Sprayed Ti–Zr–Ni Quasicrystal Coatings. **Surface and Coating Technology** V 97, (1), **2005**, pp 1-9. **6.1**
  - 9 I. Vjunitsky, **P. P. Bandyopadhyay**, St. Siegmann, M. Dvorak, E. Schönfeld, T. Kaiser, W. Steurer and V. Shklover, Thermophysical Properties and Deposition of B2-Structure Based Al-Ni-Ru-M alloys, **Surface and Coating Technology**, v 192, **2005**, pp. 131-138. **6.1**
  - 8 **P.P.Bandyopadhyay** P. Kern and Stephan Siegmann, Corrosion Behaviour of Vacuum Plasma Sprayed Ti-Zr-Ni Quasicrystal Coatings, **J. Mat. Sci.**, V 39, October 1, **2004**, pp 6101 -6104. **3.9**
  - 7 S. Das, **P.P. Bandyopadhyay**, T.K. Bandyopadhyay, S. Ghosh, and A.B. Chattopadhyay, Processing and Characterization of Plasma-Sprayed Ceramic **2.5**

Coatings on Steel Substrate: Part I; On Coating Characteristics, **Metallurgical & Materials Transactions A V** 34 (9) September **2003**, pp 1909 -1918.

- 6 S. Das, **P.P. Bandyopadhyay**, T.K. Bandyopadhyay, S. Ghosh, and A.B. Chattopadhyay, Processing and Characterization of Plasma-Sprayed Ceramic Coatings on Steel Substrate: Part II; On Coating Performance, **Metallurgical & Materials Transactions A V** 34 (9) September **2003**, pp 1919 -1930. 2.5
- 5 S. Ghosh, S. Das, T. K. Bandyopadhyay, **P.P. Bandyopadhyay**, A. B. Chattopadhyay; Indentation Response of Plasma Sprayed Ceramic Coatings, **Journal of Material Science**, V 38 (7), **2003**, pp1565 -1572. 3.9
- 4 **P.P.Bandyopadhyay**, S. Das, S. Madhusudan and A. B. Chattopadhyay, Wear and Thermal Fatigue Characteristics of Plasma Sprayed Alumina Coatings, **Journal of Material Science Letters**, 18, **1999**, pp 727-729. 3.5
- 3 K. A. Venugopal, **P.P.Bandyopadhyay**, A. B. Chattopadhyay and A.K. Chakrabarty, Investigation on Plasma Sprayed Ceramic Coatings on Austenitic Manganese and Mild Steel, **Surface Engineering**, v 15(6), **1999**, pp 465-468. 2.8
- 2 Santanu Das, **P. P. Bandyopadhyay**, A. B. Chattopadhyay, Neural-networks Based Tool Wear Monitoring in Turning Medium Carbon Steel Using a Coated Carbide Tool, **Journal of Materials Processing Technology**, Volume 63 (1- 3), **1997**, pp. 187-192 7.5
- 1 S. Paul, **P. P. Bandyopadhyay**, A. B. Chattopadhyay, Effects of Cryo-Cooling in Grinding Steels, **Journal of Materials Processing Technology**, Volume 37 (1-4) **1993**, pp. 793-800. 7.5

#### Conference publications

- 21 Saurabh Kumar, Puneet Nasna, Gourhari Ghosh, Ajay Sidpara, PP Bandyopadhyay, Proc. All India Manufacturing Technology, Design and Research conference, 8-10 December, 2023, IIT BHU, Varanasi, pp 255-262, Springer nature, Singapore.
- 20 Gourhari Ghosh, Ajay Sidpara, **Partha Pratim Bandyopadhyay**, Magnetorheological finishing of hard WC-Co coating using composite magnetic abrasives, 12th International Conference on Precision, Micro, Meso and Nano Engineering (COPEN), December, **2022**, IIT Kanpur, India.
- 19 Suman Saha, Shauvik Sikdar, A Sravan Kumar, Sankha Deb, PP Bandyopadhyay, Dependency of Machining Forces on Process Parameters During Sustainable MQL-Based Micro-milling of D2 Steel, Advances in Micro and Nano Manufacturing and Surface Engineering: Proceedings of AIMTDR 2021, 09 – 11 December 2021, Coimbatore, pp 119-128, Springer Nature Singapore

- 18 S. Saha, S. Deb, **P. P. Bandyopadhyay**, Feasibility of improving productivity through the usage of higher axial depth of cut per pass during MQL based sustainable micro-milling, 41st International MATADOR Conference on Advanced Manufacturing, 15-17 September, 2021, The University of Manchester, UK (Virtual).  
Abstract available: <https://documents.manchester.ac.uk/display.aspx?DocID=56905>
- 17 Saha S., Kumar A. S., Deb S. , **Bandyopadhyay P. P.**, An Investigation on the Top Burr Formation during Minimum Quantity Lubrication (MQL) Assisted Micromilling of Copper, 9th International Conference on Materials Processing and Characterization, 2020, 21–23 February 2020 | GLA University Mathura, U.P. India. Article available: <https://doi.org/10.1016/j.matpr.2020.02.379>
- 16 Gourhari Ghosh , Ajay Sidpara , **P. P. Bandyopadhyay**, Preliminary Results on Finishing of WC-Co Coating by Magnetorheological Finishing Process, ASME 2019 14th International Manufacturing Science and Engineering Conference, June 10–14, 2019, Erie, Pennsylvania, USA, Volume 2: Processes; Materials, ISBN: 978-0-7918-5875-2, Published Online: November 27, 2019, <https://doi.org/10.1115/MSEC2019-2914>
- 15 Manpreet Dash, Sangharsh Kumar, **P P Bandyopadhyay**, A STUDY ON EVOLUTION OF SPLAT RADIUS AND TEMPERATURE IN THERMAL SPRAY PROCESS, Proceedings of the ASME 2018 International Mechanical Engineering Congress and Exposition, IMECE2018, November 9-15, 2018, Pittsburgh, PA, USA, pp. 1-14
- 14 Gourhari Ghosh, A M Sidpara and **P P Bandyopadhyay**, CHARACTERIZATION OF NANOFINISHED WC-CO COATING USING ADVANCED 3D SURFACE TEXTURE PARAMETERS, Proceedings of the ASME 2018 13th International Manufacturing Science and Engineering Conference MSEC 2018 June 18-22, 2018, College Station, TX, USA, Paper no MSEC2018-6592, pp. 1-8.
- 13 Simanchal Kar, **P P Bandyopadhyay**, S Paul, Effect of arc-current and particle morphology on fracture toughness of plasma sprayed aluminium oxide coating, Proceedings of ASME 2017 12th International Manufacturing Science and Engineering Conference collocated with the JSME/ASME 2017 6th International Conference on Materials and Processing, Volume 1: Processes, Los Angeles, California, USA, June 4–8, 2017, PP. 1-9, doi:10.1115/MSEC2017-2993
- 12 Simanchal Kar, **P P Bandyopadhyay**, S Paul, Effect of arc-current and spray distance on elastic modulus and fracture toughness of plasma sprayed chromium oxide coatings, ITS-IFTtoMM 2017 & K-TIS 2017 March 19-22, 2017, Jeju, Korea.
- 11 Ghosh G., Sidpara A. M., **Bandyopadhyay P. P.**, Evaluation of Polishing Pad Lifespan for Finishing of HVOF Sprayed WC-Co Coating, Advances in Materials & Processing Technologies Conference, VIT, Velluru India, 11-14<sup>th</sup> December, 2017

- 10 Das P., **Bandyopadhyay P. P.**, Paul S., Finish form grinding of thermally sprayed nano-structured coatings, Advances in Materials & Processing Technologies Conference, VIT, Velluru India, 11-14<sup>th</sup> December, 2017
- 9 Shravan Kumar A., Kar S., **Bandyopadhyay P. P.**, Paul S., Grinding of ceramics - sintered ceramics versus ceramic coatings, Advances in Materials & Processing Technologies Conference, VIT, Velluru India, 11-14<sup>th</sup> December, 2017
- 8 U Gupta, A K Nath and **P P Bandyopadhyay**, Laser micro-hole drilling in thermal barrier coated nickel based superalloy, International Conf. on Adv. In Mat and Mfg. Applications, Bangalore 14-16<sup>th</sup> July, **2016**.
- 7 Gourhari Ghosh<sup>1</sup>, Ajay M Sidpara<sup>2\*</sup>, **P P Bandyopadhyay**<sup>3</sup>, Nanofinishing of Thermally Sprayed Components, 6<sup>th</sup> International and 27<sup>th</sup> AIMTDR Conf., Pune, 16-18<sup>th</sup> Dec, **2016**
- 6 M. Hadad, Z. Wang, **P.P. Bandyopadhyay**, O. Muller, J. Michler, J. Lesage, Adhesion and residual stress evaluations of thermally sprayed coatings: In-plane tensile and Rockwell indentation tests, 4th international conference of Thermal spray coating, Lille, France, 2-4<sup>th</sup> December, **2009**.
- 5 **P P Bandyopadhyay**, St. Siegmann , M Hadad and C Jaeggi, On the processing and characterisation of Thermally Sprayed Ti-Cr-Si Coatings, Proc. ITSC **2008**, Maastricht, Netherlands, June 2 -4, 2008, E. Lugscheider (Ed) in Thermal Spray Crossing Borders, DVS Verlag, pp. 435 – 441.
- 4 St. Siegmann and **P. P. Bandyopadhyay**, Tribological and corrosion behavior of vacuum plasma sprayed Ti-Zr-Ni quasicrystalline coatings, (ITSC **2007**), Thermal Spray 2007: Global Coating Solutions (Ed.) B.R. Marple, M.M. Hyland, Y.-C. Lau, C.-J. Li, R.S. Lima, and G. Montavon, Beijing, China, May 14–16, 2007, Published by ASM International®, Materials Park, Ohio, USA, Copyright© 2007, pp 931 -935
- 3 S Das, **P P Bandyopadhyay**, T K Bandyopadhyay, S Ghosh, A B Chattopadhyay, Evaluation of indigenous alumina and zircon powders for potential application as plasma sprayable consumables, Proceedings of the International Conference on Advances in Surface Treatment: Research and Applications, ASTRA , Volume **2004**, Pages 512-520
- 2 Paul,S., **Bandyopadhyay,P.P.**, Das, S., and Chattopadhyay, A.B. (1994): Effects of cryogenic cooling on wheel loading in grinding steels. Proceedings of the 16th AIMTDR Conference,December 8-10, **1994**, CMTI, Bangalore, India, pp. 478-484.
- 1 **P.P. Bandyopadhyay** and A. B. Chattopadhyay, Investigation on Plasma Sprayed Ceramic Coatings on Austenitic Manganese and Mild Steel, Seminar Organized by the Indian Foundry Society, December **1994**, Calcutta.

#### Invited talks

- 15 Developments in thermally sprayed coatings: Mechanical Engineering Colloquium, 8th April (Wednesday), 2026, IIT Kanpur
- 14 Thermally Sprayed WC-Co Coatings -Recent Developments, Keynote address, BIT Mesra, Jharkhand, India, 4<sup>th</sup>- 5<sup>th</sup> April, International Conference on Thermo-Fluids and System Design Conference (ICTFSD 2024)
- 13 Thermal Spraying: A Technology for Adding Layers; thirty- second speaker of centenary lecture series (On 30 August 2022 ), IEST Sibpur, Howrah, India
- 12 Substitution of Plasma Spray Parameters With In-flight Particle Temperature and Velocity, Workshop on Thermal Spray Coatings:Processing-Structure-Property Correlations through Multi-Disciplinary Collaboration, Bangalore, 18<sup>th</sup> January 2022
- 11 Reinforcement in Thermally Sprayed Coatings, Keynote address in the National Conference on Trends and Advances in Mechanical Engineering, Kalyani Govt. Engg. College, Kalyani, Feb 15-16, 2019.
- 10 Emerging trends in thermal spraying, Keynote address in National conference on Emerging Trends in Engineering, Science and Manufacturing (ETESM-18) 28- 29<sup>th</sup> March 2018, IGIT Sarang, Orissa, India
- 9 Thermal Spraying: processing and applications, Workshop on “Biomechanics, Implants and Related Medical Devices”, IEST Sibpur, 15th March 2017
- 8 Recent Developments in Manufacturing, workshop on New Industrial Initiative and Manufacturing Skill Development, IEST Sibpur, 22nd February 2017
- 7 Specially Engineered thermally sprayed coatings, Recent Adv . in Mfg. Engg., 18-23<sup>rd</sup> Apr, 2016, VSSUT Burla Orissa, India
- 6 Recent development in thermally sprayed coatings, Seminar on Abrasive machining and Coating Techniques in Mechanical Manufacturing, 6<sup>th</sup> March 2016, Haldia Institute of Technology, Haldia, WB, India
- 5 Particle monitoring in thermal spraying, Workshop on surface technology, Kolaghat Engineering College, Mecheda, India 3<sup>rd</sup> August, 2013
- 4 Recent development in thermal spraying machinery, Seminar organized by IFGL, Kolkata, India, 10<sup>th</sup> march, 2013.
- 3 Splat-substrate interaction in thermal spraying, Institute lecture, Bern University of Applied Science, Biel/Bienne, Switzerland, 6<sup>th</sup> July, 2012
- 2 Quasicrystal Coatings: Past, Present and Future, Expert Lecture, Tata Steel, Jamshedpur, India, 15th June 2005.
- 1 Thermal spraying – principles and applications, Course on Advanced Manufacturing

Technologies, Module 2, IIT Kharagpur, West Bengal, India, June - July, 2001, 175-182.