

**One Day Workshop
on
Applications of Plasma in Textile
Processing
(AFTP-2018)**

20th November, 2018

Organized by



**Institute for Plasma Research
Gandhinagar, Gujarat, India**

About the Workshop

Atmospheric pressure plasma has great potential for inline processing of various materials used in the textile industry such as the fabric itself, packaging material, paper etc. and offers an environment friendly solution for textile processing. The workshop is aimed at showcasing some of the activities of Institute for Plasma Research, including treatment of fibres to improve cohesion, adhesion and scouring. The workshop also aims to provide a platform to industries to discuss about the persisting surface treatment problems in the textile industries and identify possible plasma based solutions. There will also be a demonstration of various plasma technologies available at IPR for textile industries and organizations involved in textile research.

Who should attend?

Industry professionals, Entrepreneurs, Textile Engineering and Technology Faculties, Scientists working in the field of textile research.

Date and Venue

The workshop is scheduled to be held on 20th November, 2018 in the Seminar Hall of FCIPT Campus, IPR, Gandhinagar

About FCIPT and IPR

Institute for Plasma Research is a grant-in-aid institution under DAE, Govt. of India, set up in 1986 for carrying out theoretical and experimental studies in plasma physics, building tokamaks for thermonuclear fusion research and industrial plasma applications. IPR is the nodal agency from India for participation in the international fusion reactor programme ITER. The FCIPT centre was setup in 1997 to promote the commercial exploitation of plasma technologies through development, incubation, demonstration, manufacturing and transfer. The centre has process development and instrumentation laboratories, job shop, material characterization and manufacturing facilities and has a multi-disciplinary team of scientists and engineers with expertise in plasma physics, plasma chemistry, metallurgy, material science, power electronics and instrumentation.

**The workshop will cover topics on
plasma applications for**

- Hydrophilic functionalization
- Scouring and de-sizing
- Adhesion improvement in polymers and textiles
- Enhancing anti-bacterial properties
- Self-cleaning fabrics
- Denim fading
- Wool treatment for shrink resistance
- Improvement in service life of textile components

Advisory Committee

Dr. S. Chaturvedi, IPR
Prof. A. Agrawal, IIT-D
Padmashree Prof. P. I. John
Dr. S. K. Basu, Director, MANTRA
Mr. M. N. Subramanian, ATIRA
Prof. P. B. Jhala, NID
Dr. Ms. Krishna Patel, NID PG-Campus
Dr. S. K. Nema, IPR

Organizing Committee

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Dr. Vishal Jain, IPR (Co-Convener)
Dr. Ravi A. V. Kumar, IPR
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Mr. P. V. Murugan, IPR
Ms. Purvi Kikani Dave, IPR
Ms. Falguni Shah, IPR
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**Figure: Atmospheric
Pressure plasma
formation between
DBD rollers for textile
treatment**