

# **2021 ASPE Spring Topical Meeting**

Freeform and Structured Surfaces

Online  
28-29 April 2021

ISBN: 978-1-7138-2953-9

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Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



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# ASPE 2021 Spring Topical Meeting: Freeform and Structured Surfaces Oral Sessions

## Session 1

### Functional SS

Wednesday, April 28, 2021, 9:50 AM - 11:05 AM

Session Chair:

Chi-Fai Cheung (The Hong Kong Polytechnic University)

- 1. Computer Vision-Based Precision Positioning Using Ultra-Precision Diamond Machined Polar Microstructured Surface**  
Cheung, C.F. (The Hong Kong Polytechnic University); Zhao C. (The Hong Kong Polytechnic University; Harbin Institute of Technology) .....1
- 2. Surface Texturing of Metallic Surfaces with Longitudinal-Torsional Coupled Rotary Ultrasonic Milling**  
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- 3. Parametric Simulation and Analysis of Self-Cleaning and Antifouling Functional Surfaces with Trilateral Geometric Function**  
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- 4. Development of a Temperature Sensor Based on Boron-Doped Single Crystal Diamonds for Temperature Measurement in the Cutting Zone**  
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### Surface Manufacture Part 1/ Replication and Manufacturing (Macro Focus)

Wednesday, April 28, 2021, 12:05 PM - 2:05 PM

Session Chair:

Jay Udayasankaran (Raytheon Technologies)

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Gurganus, D.K.; Dutterer, B. (Department of Mechanical Engineering, University of North Carolina at Charlotte); Novak, S. (Precision Glass Molding Technology LightPath Technologies); Davies, M.A. (Department of Mechanical Engineering, University of North Carolina at Charlotte) .....12

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Session Chair:

Joseph Owen (Raytheon Technologies)

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Session Chair:

Richard K. Leach (University of Nottingham)

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#### Poster Session

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Session Chair:

John Schaefer (Raytheon Technologies)

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Session Chair:

Alexander Sohn (Facebook Reality Labs)

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Thursday, April 29, 2021, 2:35 PM - 3:50 PM

Session Chair:

Stephen Furst (Smart Material Solutions, Inc.)

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