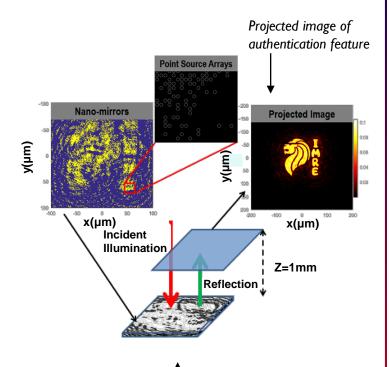


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# Advanced Optics: Hologram for Anti-Counterfeiting

### **Science behind the Technology**



Nano-mirrors projecting the image of the authenticating feature at a distance 'Z'(1mm) away based on the interference of reflective light

## Addressing ...

- the complicated authentication of security features
- ineffective and easily replicable security features which may also affect the aesthetics of products

#### **Key Features**

- Employs nanomirror-like structures that are hard to replicate
- Allows seamless incorporation into products without affecting aesthetics
- Enables straightforward inspection, e.g., a simple laser pointer will illuminate and project the hologram feature to a visible centimetre-scale
- Involves a cost-effective process to fabricate the dot-like holographic tag (the security feature)

# **Potential Applications**

- Authentication features on banknotes
- Security tags for trademarks for high-end products and luxury goods

# **Collaboration Opportunities**

- Development of technology for targeted applications
- Product development

#### Reference

 Huang K, Liu H, Si GY, Wang Q, Lin J, Teng JH. Photonnanosieve for ultrabroadband and large-angle-of-view holograms. Laser & Photonics Reviews. 2017;11(3).



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