



IEEE Systems Council Chapter presents IEEE Distinguished  
Lecture Series on

## 3D Printing, Microwave Design, and Woodwinds Come Together

**Dr. Charlie Jackson**



Date: March 9, 2022 (Wed)  
Time: 4:00 – 6:00 PM  
Location: ECS 312, CSULB  
(Hybrid Presentation)  
Zoom Link:  
[https://csulb.zoom.us/j/89835  
721451](https://csulb.zoom.us/j/89835721451)

**Abstract:** People have been making musical instruments for a long time; for over 40,000 years. We use whatever we can find to make them. Today we can use 3D printers to make them. This talk will show how to apply microwave theory (transmission line theory, network analysis, and S-Parameters) to design of woodwind instruments; especially renaissance instruments such as the flute, crumhorn, or cornetto. The talk will show how to use 3D printing to make working instruments.

**About Speaker:** Dr. Charlie Jackson has had an interest in the design of woodwind instruments for many years. He has written articles on Quasi-optical components, High Temperature Superconductors for microwave applications, Ferroelectric phase shifters, and Microwave Radiometers. He has been awarded three patents. He is on the Center Staff of the RFMS of Northrop Grumman Aerospace Systems. He was President of the IEEE Microwave Theory and Techniques Society in 2001, and is a Fellow of the IEEE.

For more information, please contact: Prof. Henry Yeh at [henry.yeh@csulb.edu](mailto:henry.yeh@csulb.edu)

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\*This is a joint invitation between CSULB IEEE Student Branch and IEEE Systems Council Chapter.