

VPIphotonics releases a New Interoperable Software Platform for the Design of Photonic Devices

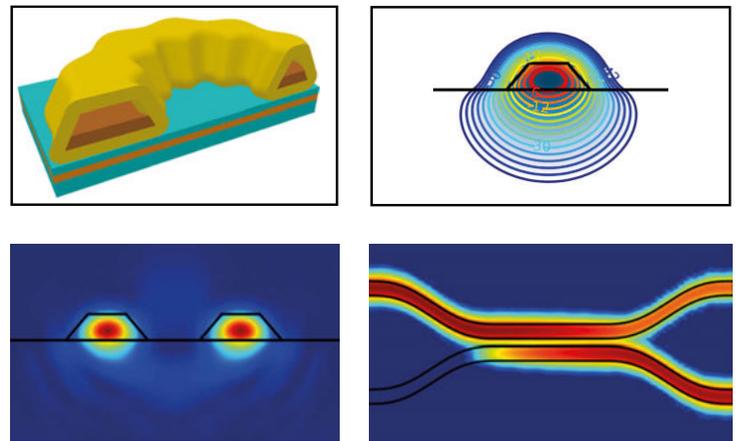
Optical communications, medical sensing and autonomous driving have all adopted technologies that utilize photonic devices. Fiber optic technologies are used so widespread that in some instances are now considered infrastructure, and photonic integrated circuits are expected to see accelerated growth in the coming years. To address the continued need for photonic device designs in a growing number of industries, VPIphotonics announced a new photonic device design platform, *VPIdeviceDesigner*.

VPIdeviceDesigner offers researchers an easy-to-use platform based on an object-oriented Python interface greatly reducing the learning curve. This ease of use is coupled with the design flexibility supporting 2D waveguide cross-sections and 3D device layouts made of real (dispersive, temperature-dependent, doped, anisotropic) optical materials. One of the key benefits of this new software platform is that it enables a complete hierarchical design workflow: targeting photonic device design, *VPIdeviceDesigner* complements the interoperable VPIphotonics Design Suite, an industry leading software platform for designing photonic integrated circuits and fiber optic components as well as optical transmission systems.

“Engineers routinely face the challenge of combining various design and simulation tools in one workflow,” stated André Richter, General Manager of VPIphotonics. “With our new photonic device design platform, VPIdeviceDesigner, not only can we supply them with the tools needed to create cutting-edge devices, but we can empower them to simulate and optimize those devices for use in their target application at the component- and system-level as well.”

VPIdeviceDesigner offers a set of full-vectorial finite difference mode solvers that support widely customizable nonuniform meshing with symmetric and perfectly matched layer absorbing boundaries for simulations of guided modes in straight and bent waveguides and fibers. For simulations of photonic devices, it offers 2D and 3D implementations of the finite-difference frequency-domain beam-propagation method (BPM).

The new solution is highlighted in a Technology Showcase presentation by our team at the [CLEO Conference](#) on May 11th, 2021 and during the [EPIC Members New Product Release](#) on June 1st, 2021.



Figures: Data Visualization & Analysis - *VPIdeviceDesigner*

About VPIphotonics

VPIphotonics sets the industry standard for end-to-end photonic design automation comprising design, analysis and optimization of components, systems and networks. We provide professional simulation software addressing demands in optoelectronics, integrated photonics and fiber optics, optical transmission links and network. Our team of experts delivers training courses on modeling techniques and advanced software capabilities. Our award-winning off-the-shelf and customized solutions are used extensively in cutting-edge research and development, and by product design and marketing teams at hundreds of corporations worldwide. Over 160 academic institutions joined our University Program enabling students, educators and researchers an easy access to VPIphotonics' latest modeling and design innovations. More information is available at www.VPIphotonics.com.