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Patterson Intellectual Property Law is pleased to announce the following recently issued patents obtained for our clients:

U.S. Patent No. 11,064,588 entitled "Clamped Resonant Tank with Constant Soft-Switching and Startup Overshoot Prevention" issued July 13, 2021 to Universal Lighting Technologies, Inc., of Madison, Alabama. Invented by Wei Xiong, also of Madison, Alabama. Abstract: An LED driver circuit includes a DC-to-AC inverter that provides a primary AC voltage to the input node of a resonant tank circuit. The resonant tank circuit includes a resonant tank circuit inductor, a resonant tank circuit capacitor and a primary winding of an output transformer. The resonant tank circuit capacitor and the primary winding are connected in parallel between a resonant tank circuit output node and a DC balance node. The DC balance node is coupled to a first bus by a first DC-blocking capacitor and is coupled to a second bus by a second DC-blocking capacitor. The output transformer has at least one secondary winding. An AC output voltage from the secondary winding is rectified to generate a DC voltage, which is applied to a load having a plurality of LEDs. The resonant tank circuit input node is clamped by first and second clamping diodes.

U.S. Patent No. 11,051,567 entitled "Device for Dynamic Fluid Pinning" issued July 6, 2021 to BVW Holding AG of Cham, China. Invented by Michael Milbocker of Holliston, Massachusetts and Lukas Bluecher of Eurasberg, Germany. Abstract: The present disclosure provides microstructured hydrophobic surfaces and devices for gripping wet deformable surfaces. The surfaces and devices disclosed herein utilize a split contact Wenzel-Cassie mechanism to develop multi-level Wenzel-Cassie structures. The Wenzel-Cassie structures are separated with a spatial period corresponding to at least one wrinkle eigenmode of a wet deformable surface to which the microstructure or device is designed to contact, allowing grip of the deformable surface without slippage. Microstructures of the present invention are specifically designed to prevent the formation of Shallamach waves when a shear force is applied to a deformable surface. The multi-level Wenzel-Cassie states of the present disclosure develop temporally, and accordingly are characterized by hierarchical fluid pinning, both in the instance of slippage, and more importantly in the instance of localization. This temporal aspect to the multi-level Wenzel-Cassie state delays or prevents the transition from a wrinkled

eigenmode state in a deformable surface to a buckled state in a deformable surface.

U.S. Patent No. 11,053,912 entitled “Wind Turbine for Facilitating Laminar Flow” issued July 6, 2021 to Magnelan Technologies Inc., of Westlake Village, California. Invetned by Rudolph Oelofse of Seattle, Washington. Abstract: Vertical axis wind turbines are provided having foil design and geometry that facilitates lift, torque and laminar flow along a 360 degree radial. Contemplated foils are non-planar, and have a chord length that is at least three times greater than a distance between a trailing end of a leading foil, and a leading end of a trailing foil. Additionally or alternatively, the foils are located away from a turbine axis at a distance that is about 2.9-3.5 times greater than a chord length of the foils. In some embodiments, the foils are circumferentially distributed via one or more laminar stall vanes.