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Abstract

Additive manufacturing applied in parallel architecture machine

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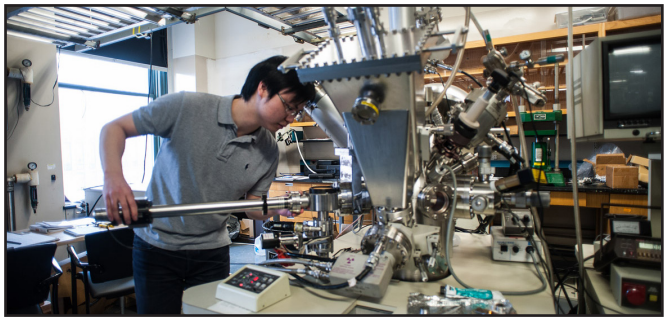
Abstract:

The following research are focused in take an old router machine and adapt it for ceramic materials additive manufacturing. The lining of it is improve the small or medium industry that by any reason can't get new high-end capabilities machinery but has old machinery that can be improved or repowered adding some other manufacturing technologies. Following this idea, the laboratory has a parallel CNC router built in 2006 with an unsupported hardware (too old) and software with limited capabilities, the followed document show how is made the 3d ceramic printing capabilities repowered to this machine under single minutes exchange die (SMED) paradigm. Also, will show the software adjustment made and the following calibration of all the variables concerned at this investigation. This development can also be use in the petrochemistry industry to make ceramic pellets that can be used to oil refinement

Biography:

Sebastian Matamoros will completed his degree at the age of 25 years from National University of Colombia. He is a researcher at Experimental Factory Laboratory (LabFabEx by its acronym in spanish) focus at additive manufacturing and desing with photopolymer and ceramic materials. He has published 2 papers in meetings in Colombia and a scientific magazines.



Publication of speakers:

1. David Sebastian Matamoros Buitargo et al; N-Doped Carbon Xerogels as Pt Support for the Electro-Reduction of Oxygen, 2017 Sep; 10
2. David Sebastian Matamoros Buitargo et al; Towards Highly Performing and Stable PtNi Catalysts in Polymer Electrolyte Fuel Cells for Automotive Application, 2017 Mar; 10
3. David Sebastian Matamoros Buitargo et al; Mitofusin 2 in POMC Neurons Connects ER Stress with Leptin Resistance and Energy Imbalance, 2013 Sep 26
4. David Sebastian Matamoros Buitargo et al; Capacitance Enhancement of Hydrothermally Reduced Graphene Oxide Nanofibers, 2020 Jun; 10
5. David Sebastian Matamoros Buitargo et al; Selectivity of Direct Methanol Fuel Cell Membranes, 2015 Nov 24

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