

1145-B1-2829      **Malgorzata Marciniak** (mmarciniak@lagcc.cuny.edu), **Marina Nechayeva\***  
(lamaga0@yahoo.com) and **Vladimir Przhebelskyi**. *From aerodynamics to wind data, genetics  
algorithm and 3D printing.*

Few years ago, our team of mentors began research projects in aerodynamics. We were very excited about our students' progress and energy. Every year we brought few improvements to the projects to broaden the topics and make them more "modern." Last year our attention was focused on using the genetics algorithm for the purpose of optimizing the parameters of a micro wind turbine that would hypothetically be placed on the roof of our college. Inspired by satisfying theoretical results we proceeded to print a 3D model of the turbine to test it in the wind tunnel. The project contains an additional aspect of statistical analysis and modeling of the wind data on the roof of our college. (Received September 25, 2018)