# The Center of One Geometric World

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The figure built by four different lines in general position on the plane as quadrilateral. Quadrilateral is called cyclic, if quadrangle, which appears in intersection of these 4 lines, is inscribed into a circle. So our investigations were exactly about this famous construction of classical geometry. The main results of the study contain proofs of new properties of well known points and lines, which appears in this construction, and discovery of a new point (the work is named in honor of that point), which unites all points and lines “living in the world of cyclic quadrilateral”. Thus, at the first time the fact, that Ober line is a radical axis of a circle outscribed about given quadrangle and a circle, which contains circumcenters of all four triangles built by these four lines, was proved. Furthermore, the first geometrical proof of existence of Erway point was found (all previous proofs used algebraic methods a lot). And the central result is that we have discovered a point such that it belongs to four circles each passing through 6 different remarkable points of cyclic quadrilateral, it is the center of 2 circles each containing 5 different important points of that construction, and this point is also collinear with three pairs of pivotal points of quadrilateral.

**Awards Won:**