The paper deals with problems of Differential Geometry of multi-dimensional projective space. Regular hyper-zones in the metric projective space with the absolute are discussed [1]. The research method is based on the Differential-Geometrical Method developed by Prof. G. Laptev [2].

The geometrical objects have been constructed in the third differential neighborhood of the forming element of the regular hyper-zone. These objects determine the equipping planes by the inner invariant method. The two-parameter bunch of the invariant osculating hyper-quadrics for the regular hyper-zone is constructed in the third differential neighborhood of the forming element. The tangent plane of the basic surface and the characteristic of the principal tangent hyper-plane are polar-conjugate with regard to the obtained bunch.

The fields of the invariant normal of the first and second kinds are constructed in the third differential neighborhood of the forming element of the regular hyper-zone by the inner invariant method. It has been proved that the obtained normal are polar-conjugate with regard to invariant osculating hyper-quadrics. This let us get an uncountable set of the dual normalizations of the regular hyper-zones.

1. Grebenyuk M. Focal images which associated with hyper-zone SH. Bulletin of the University of Kiev, Series: Physics & Mathematics, 2001, 3, 23-31.
2. Laptev G. Differential geometry of immersed manifolds: Theoretical and group method of differential-geometrical researches, Proceedings of Moscow Mathematical Society, 1953, v. 2, 275-382.