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**Nurten (Bayrak) Gürses\*** (nbayrak@yildiz.edu.tr), Yıldız Technical University, Faculty of Arts and Sciences, Department of Mathematics, 34220 Istanbul, Turkey, and **Salim Yüce**. *On the Moving Coordinate System and Pole Points in Affine Cayley-Klein Planes.*

In 1956, W. Blaschke and H.R. Müller introduced the one-parameter planar motions and obtained the relation between absolute, relative, sliding velocities and accelerations in the Euclidean plane  $\mathbb{E}^2$ . A. A. Ergin, considering Lorentzian plane  $\mathbb{L}^2$  instead of the Euclidean plane  $\mathbb{E}^2$ , introduced the one-parameter planar motions and also gave the relations between the velocities and accelerations in 1991. Also, in 2013, M. Akar and S. Yüce introduced the one-parameter motions in the Galilean plane  $\mathbb{G}^2$ . Then, N. (Bayrak) Gürses and S. Yüce give the one-parameter motions in affine Cayley-Klein planes  $\mathbb{P}_\epsilon$  in 2014. In this present paper, we will take into consideration three affine Cayley-Klein planes:  $A_\epsilon$  and  $\mathbb{P}_\epsilon$  and  $\mathbb{P}'_\epsilon$ .  $\mathbb{P}'_\epsilon$  is a fixed plane relative to two other moving affine Cayley-Klein planes. We will discuss the relation between the motions  $A_\epsilon/\mathbb{P}_\epsilon$ ,  $A_\epsilon/\mathbb{P}'_\epsilon$  and  $\mathbb{P}_\epsilon/\mathbb{P}'_\epsilon$  with evaluating their derivative formulae, velocity vectors and pole points. (Received September 15, 2014)