NILPOTENT GEOMETRY AND THE CURVATURES OF A SUBRIEMANNIAN STRUCTURE

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On the basis of the nilpotent geometry developed as in my article (Lie algebras, geometric structures and differential equations on filtered manifolds, *Adv. Stud. Pure Math.*, 37, 205–252, *Math. Soc. Japan, Tokyo*, 2002), we construct a Cartan connection associated with a subriemannian manifold under reasonable regularity conditions, and obtain the complete local invariants of the subriemannian manifold through the curvature of the Cartan connection and its higher order derivatives.