

## Motorway traffic related VACS – Platooning systems

System	Description	Sources of info
<b>Adaptive Cruise Control (ACC)</b>	Automatically adjusts speeds to preserve a desired time or space gap from the preceding vehicle; several vehicles following each other, if equipped with such a system can form a vehicle platoon	Zwaneveld and van Arem, 1997; Fancher et al, 1998; Swaroop and Rajagopal, 1998; Bose and Ioannou, 1999, 2001, 2003; VanderWerf et al, 2001, 2002; Li and Shrivastava, 2002; Davis, 2004, 2006, 2007; Zhang and Ioannou, 2004; Bishop, 2005; Ioannou and Zhang, 2005; General Motors Corporation, 2005; University of Michigan and General Motors Corporation, 2005a, 2005b; Rajamani et al, 2005; Visser, 2005; Jiang and Wu, 2006; Rajamani, 2006; Yi and Horowitz, 2006; Alkim et al, 2007; Ioannou et al, 2007; Kesting et al, 2007a, 2007b, 2008, 2010; Viti et al, 2008; Yuan et al, 2009; Pueboobpaphan and van Arem, 2010; Xiao and Gao, 2010; Kessler et al, 2012; Tapani, 2012; Benmimoun et al, 2012, 2013; <a href="http://www.eurofot-ip.eu/en/intelligent_vehicle_systems/acc/">http://www.eurofot-ip.eu/en/intelligent_vehicle_systems/acc/</a> [accessed 11.03.2013]
<b>Cooperative Adaptive Cruise Control (CACC)</b>	Automatically adjusts speeds to preserve a desired time or space gap from the preceding vehicle; several vehicles following each other, if equipped with such a system can form a vehicle platoon	VanderWerf et al, 2002, 2001, 2007; Maihöfer et al, 2004; Bishop, 2005; Visser, 2005; Popescu-Zeletin et al, 2010; Shladover et al, 2010, 2011; Arnaut and Bowling, 2011, 2013
<b>Cooperative Following and Merging (CFM)</b>	Automatically adjusts speeds to preserve a desired time or space gap from the preceding vehicle and assists lane changing manoeuvres by creating and maintaining an appropriate gap in the target lane; several vehicles following each other, if equipped with such a system can form a vehicle platoon	Tampère et al, 1999
<b>Full Speed Range Adaptive Cruise Control (FSRA)</b>	Automatically adjusts speeds, at all levels, to preserve a desired time or space gap from the preceding vehicle; several vehicles following each other, if equipped with such a system can form a vehicle platoon	Minderhoud, 1999; Ehmanns and Spannheimer, 2004; Bishop, 2005; Alkim et al, 2007; Viti et al, 2008; Hoeger et al, 2011; Shladover, 2012a; iMobility Forum, 2013
<b>Highway Pilot (HP)</b>	Automatically adjusts speeds, in the range 0-130 km/h, to preserve a desired time or space gap from the preceding vehicle; several vehicles following each other, if equipped with such a system can form a vehicle platoon	iMobility Forum, 2013; Hoeger et al, 2011
<b>Integrated Full-Speed Range Speed Assistant (IRSA)</b>	Supports speed maintenance within fixed or dynamic limits and adjusts them to preserve a desired time or space gap from the preceding vehicle; several vehicles following each other, if equipped with such a system can form a vehicle platoon	Wilmink et al, 2006; van Arem et al, 2007
<b>Low Speed ACC (LSACC)</b>	Automatically adjusts speeds, at low levels, to preserve a desired time or space gap from the preceding vehicle; operates at low speed levels; several vehicles following each other, if equipped with such a system can form a vehicle platoon	Minderhoud, 1999; Benz et al, 2003; SINTEF et al, 2004; Bishop, 2005; van Driel, 2007; van Driel and van Arem, 2008, 2010
<b>Vehicle Platooning System (VPS)</b>	Involves a variety of options for forming closely-spaced semi or full automated vehicle platoons, aiming at more convenient, safe, fuel-efficient and traffic-efficient driving	PATH, 1997; Michael et al, 1998; Hedrick et al, 2001; Lee and Kim, 2002; Bonnet, 2003; Ehmanns and Spannheimer, 2004; Bishop, 2005; Hallé and Chaib-draa; 2005; van Arem et al, 2006; Alam et al, 2010; Alam, 2011; Tientrakool et al, 2011; Bergenheim et al, 2012a, 2012b; Kavathekar, 2012; Shladover, 2012a; Brännström, 2013; Davila, 2013; iMobility Forum, 2013; Kianfar, 2013; SARTRE, 2013; Tsugawa, 2014;