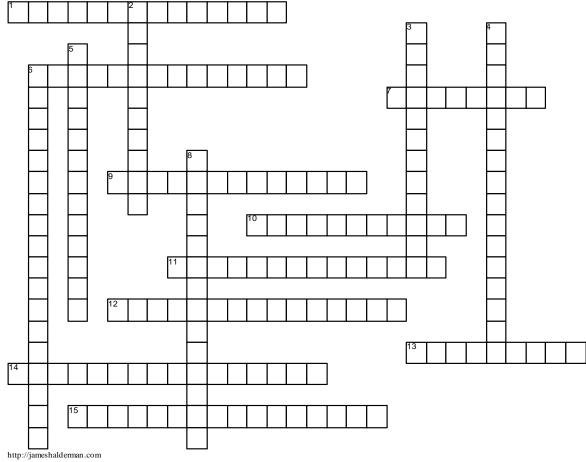
EV and HEV Driver Assist Systems

Chapter 18



ACROSS

1	A vibration is often created in the
	steering wheel or the driver's seat called
	a
6	control (ACC),
	also called radar cruise control, gives
	the driver more control over the vehicle
	by keeping an assured clear distance
	behind the vehicle in front.
7	The purpose of assist (LKA)
	, also called lane keep assist system
	(LKAS), is not only to warn the driver if
	the vehicle is moving out of the lane of
	traffic, but when there is no response
	from the driver, to also automatically use
	the electric power steering system to
	steer the vehicle back into the lane.
9	Thesystem is used to
	help drivers avoid contact with another
	object while moving slowly.
0	vehicles, also called
	automatic parking vehicles, use the
	camera(s) and control the electric power
	steering to guide the vehicle into a
	parking space.

	systems (ADASs) is to provide the driver
	with systems that alert the driver of any
	potential issues.
12	parking sensors
	(EPS) detect when a vehicle is moving
	slowly and toward an object.
13	The monitor is a vehicle-
	based sensor device that detects other
	vehicles located to the side and rear of
	the vehicle.
14	A warning (RCTW)
	system sounds an audible warning when
	a vehicle is crossing at the rear while
	backing.
15	sensors are used to
	measure the distances to nearby objects
	and are built into the fender, and front
	and rear bumper assembly.
DO	WN
2	The automotive industry is working to
	develop intelligence (AI)
	systems for the transportation industry,
	including automated and autonomous
	driving systems for passenger cars,
	commercial trucks, and industrial

	applications.
3	The interface (HMI) was
	very basic in the past because the
	vehicles were equipped with most of the
	following to let the driver know what the
	vehicle (the machine) was doing:
	Speedometer, Fuel level gauge (HV
	battery charge level), Outside air
	temperature, and Tire pressures.
4	Advice (ISA) uses
	a sign recognition camera or a
	navigation system (GPS) to determine
	the speed limit, which is used to warn the
	driver of the posted speed limit.
5	The warning system
	(LDWS) uses cameras to detect if the
	vehicle is crossing over lane marking
	lines on the pavement.
6	braking
	(AEB) systemintervenes and
	automatically applies the brakes if
	needed.
8	LiDAR means and
	Ranging or Light Imaging, Detection,
	And Ranging. LiDAR systems emit light
	pulses that are reflected off of objects
	and return for interpretation.

