**Automotive Electricity and Electronics**

**Chapter 29 –** **Advanced Driver Assists Systems (ADAS)**

**Lesson Plan**

**CHAPTER SUMMARY:**

1. Advanced Driver Assist Systems, Blind Spot Monitor, and Parking-Assist Systems

2. Lane Departure Warning, Lane Keep Assist, and Adaptive Cruise Control

3. Rear Cross-Traffic Warning (RCTW) and Automatic Emergency Braking

4. Pre-Collision System, Hill Start Assist, and ADAS Diagnosis

5. Camera and Radar Sensor Calibration

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**OBJECTIVES:**

1. Describe the purpose and function of advanced driver assist systems.

2. Discuss blind-spot monitors and parking assist, as well as self-parking systems.

3. Explain lane departure warning and lane keep assist systems.

4. Describe how adaptive cruise control systems work.

5. Discuss rear cross-traffic warning system operation.

6. Explain automatic emergency braking and pre-collision systems.

7. Describe the operation of hill start assist.

8. Describe the diagnostic and calibrations procedures for advanced driver assist systems.

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**RESOURCES:** [(All resources may be found at jameshalderman.com)](https://jameshalderman.com/)

1. Task Sheet: Advanced Driver Assist Systems

2. Task Sheet: ADAS Sensors

3. Task Sheet: Sensor Calibration

4. Chapter PowerPoint

5. [Crossword and Word Search Puzzles (A6)](https://jameshalderman.com/a6_puzzles_lib_page/)

6. [Videos: (A6) Electrical/Electronic Systems](https://jameshalderman.com/a6_vid_lib_page/)

7. [Animations: (A6) Electrical/Electronic Systems](https://jameshalderman.com/a6_anim_lib_page/)

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**ACTIVITIES:**

1. Task Sheet: Advanced Driver Assist Systems

2. Task Sheet: ADAS Sensors

3. Task Sheet: Sensor Calibration \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**ASSIGNMENTS:**

1. Chapter crossword and word search puzzles from the website.

2. Complete end of chapter quiz from the textbook.

3. Complete multiple choice and short answer quizzes downloaded from the website.

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**Automotive Electricity and Electronics**

**Chapter 28 –** **Body Electrical Accessories**

**Lesson Plan**

**CLASS DISCUSSION:**

1. Review and group discussion chapter Frequently Asked Questions and Tech Tips sections.

2. Review and group discussion of the five (5) chapter Review Questions.

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**NOTES AND EVALUATION:**

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