

Final Stretch to EECS Day (April 19) Preparation



**The journey is almost over
and you'll jump soon**

EECE404 Senior Design II
Electrical Engineering and
Computer Science
Howard University

Instructor: Dr. Charles Kim

Toward the Goal Line

Date	Activities
T 4/2/2019	<ul style="list-style-type: none">• Lecture on “<u>Final Presentation Format</u>”• Lecture on Final Report Format• Lecture on Poster Board
T 4/9/2019	<ul style="list-style-type: none">• System Demonstration Week
T4/16/2019	<ul style="list-style-type: none">• Presentation – “Final Presentation Format”• Dress Rehearsal by all teams (Dress Code: Business) : 10 minutes each.
F 4/19/2019	<i>EECS Day – Formal Presentation and Demonstration</i>



Goooooooooooooal !!!!

Date	Activities
T 4/23/2019	<ul style="list-style-type: none">• Regular Class (Last) – Final Exam & Class Survey
W 4 /24/2019	<ul style="list-style-type: none">• 5:00pm Submission of Final Report (via Email)
R 4/25/2019	<ul style="list-style-type: none">• 5:00pm: Submission of (1) Peer Evaluation (via email – the same form) (2) Team Project Binder
F 4/26/2019	<ul style="list-style-type: none">• Grade Report for PG



EECS Day Event Format (Fri 4/19/2019)

2nd EECS Day Schedule (2018) @ Innovation Center

8:30 – 9:00am: Registration and Breakfast

9:00 – 9:15am: Welcome

9:15 – 11:45am: Design Project Presentation (EE/CpE + CS)

12:00 – 1:00pm: Lunch

1:00 – 1:45pm: Keynote Speech

1:45 – 2:15pm: Project Demonstration (with Poster)

2:15 – 3:00pm: Award Ceremony

3:00 pm: Adjourn

3:15pm: JUMP!



EECS Day Event Format (Fri 4/19/2019)

9:15 – 11:45am: Design Project Presentation (EE/CpE + CS)



EECS Day Event Format (Fri 4/19/2019)

1:45 – 2:15pm: Project Demonstration (with Poster)



EECS Day Format

- **Part A: Presentation (10-min presentation each)**
 - Formal presentation in the Forum
 - Presentation only, therefore, presentation needs some visual display of the final product **with video clips** for example
- **Part B: Poster Board + Demonstration (50 minutes)**
 - A table is assigned to each team
 - A **poster** board **MUST** be made and set
 - Place a demo system in front of the poster board



ECE Day Grading Sheet

PRESENTATION & DEMONSTRATION SCORE SHEET

* Instruction for judges: Please grade Sections A & B for the presentation, and Section C for the Demo and Poster Session.

Grading scale: Excellent(4) Good(3) Fair(2) Poor(1) Fail(0)

Name of Evaluator											
Senior Design focuses on experiencing all the phases of problem solving: Problem Formulation, Design Requirement under Constraints, Solution Generation and Top Design Selection, Implementation, and Evaluation. Also, Risk Identification and Management throughout the project period is encouraged.	Solar										
	P1	P2	P3	P4	P5						
A1. Clear Description of Problem with Background and Needs						A. Problem Solving					
A2. Well Defined and Quantified Design Requirements											
A3. Sound Technical Approach for Solution Generation											
B1. Professional Presentation with Direct Eye Contact						B. Technical Communication					
B2. Demonstration of Full Knowledge of the Subject											
B3. Well Organized Topics and Contents with Good Visuals											
C1. Clear Explanation of the Essence of the Demonstration						C. Demonstration					
C2. Satisfactory Level of System Integration for the Project											
C3. Does the System Meet the Design Requirements?											
Overall, give an extra point if you want {0 - 4}						Extra point					
TOTAL						[40]					
COMMENTS											
(Use back side also if necessary)											

Final Presentation Slide Format

1. Cover (1 slide)

- Title and Members & faculty advisor & date

2. Problem Definition (1 – slide)

- Long –term goal
- 2018- 2019 academic year goal
- Problem Statement

3. Design Requirements (1- 2 slides)

- Refined Problem Definition in **Quantification**
- Design Requirements: emphasis on **constraints and rules and regulations**

4. Solution Design

- Explanation of the final solution design with schematics and diagrams

5. Implementation Process (4 - 5 slides)

- Assigned tasks for solution implementation
- **Photos, screen shots, circuit diagrams**, etc, etc.
- Testing of the integrated system
- **Video clips**

6. Conclusions (1 slide)

- Crisp and clear summary of the presentation

Presentation Visuals - Revisited

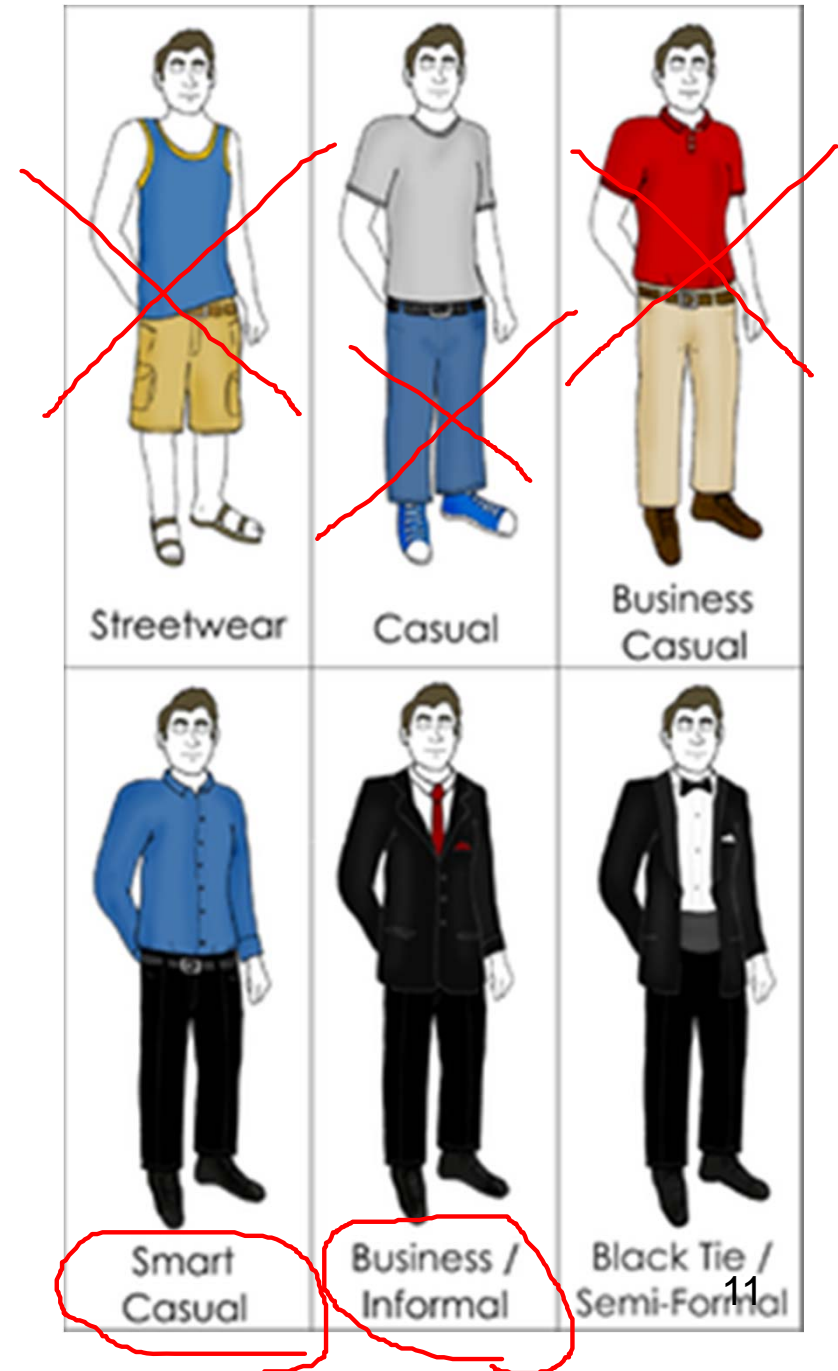
- Slides for Presentation Assistance
 - One nice figure is better than a thousand words.
 - Discrete, not continuous: **Bullet Items (no complete sentences)**
 - Much more visually-oriented
 - Make a slide design simple and crisp
 - No uppercase all the time
 - Layout and Appearance are critical

Too
many
fonts
spoil
THE
DESIGN

USING ALL UPPERCASE
ALL THE TIME
MAKES TEXT
REALLY HARD TO READ

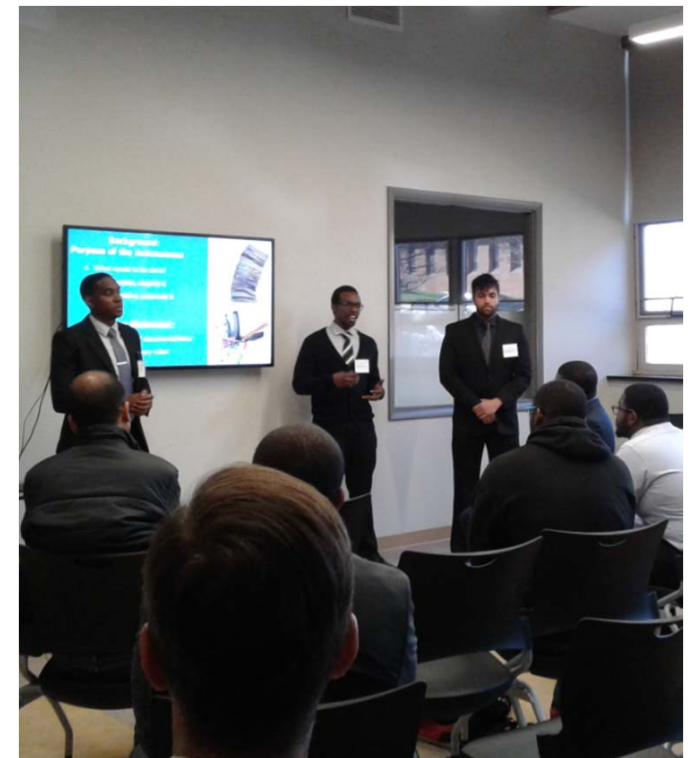
Dress Code

- T April 16 Dress Rehearsal Presentation
 - Business casual
 - Business
- F April 19 EECS Day
 - Business



Team Presentation - Revisited

- Plan ahead and do practice, a lot.
- Smooth Transition from a presenter to another
- Decide Position and Roles in advance
 - how you will position yourselves
 - who will be where and
 - what they will do while another member is speaking?
- Make sure that
 - Everyone in the group is doing his/her share
 - Everyone performs well on his/her presentation part
- Q&A
 - Make sure you understand the question
 - Knowledgeable humility is the best ally



Final Report

- **Last Year Webpage**



FINAL REPORT

[AutoMoe](#), [Deliveroid](#), [DOPES](#), [eTrike](#), [EV](#), [HACK](#), [SensorNet](#), [Slate8](#), [Terminator](#)

- **This Year's Webpage**

FINAL REPORT: AutoMoe, eTrike, Graphone, Sandia, SLAM, Terminator

Final Report Format

- **1. Cover Page** : Project Title, Project Team Members, Faculty Advisor, Date
- **2. Summary (****)**: 1 paragraph of condensed description of the entire report
- **3. Problem Statement** (start from last semester's)
 - Long-term goal & 2017-2018 academic year goal
 - 1 paragraph sentence problem statement
- **4. Design Requirement (***)**
 - Revise from the last semester, so that
 - (a) they are quantified, and
 - (b) constraints (social, cultural, political, environmental, economic, time, etc) (*****)
- **5. Solution Design (*****)**
 - **Patent-Like Description (all teams) (*****)**
 - Drawings/Figures should have indicating numbers
 - Text body should include numbers for corresponding parts in the figures/drawings
- **6. Project Implementation Plan**
 - Use this semester's submission
- **7. Project Implementation Process (****)**
 - Describe what you have done
 - Figures and Pictures
 - Flowcharts & Screen Shots
- **8. Conclusions**
 - 1 paragraph concise and condensed conclusion
- **9. References**

Final Report Format

- NOTE:
 - Build from last semester submissions
 - **Write in full sentences.**
 - **Do not bullet itemize**
 - Grading Emphasis Points (* marks)
- **1. Cover Page**
 - Project Title, Project Team Members, Faculty Advisor, Date
- **2. Summary (****)**
 - 1 paragraph of condensed description of the entire report

Final Report Format

- **3. Problem Statement** (start from last semester's)
 - Long-term goal
 - 2018-2019 academic year goal
 - 1 paragraph or sentence problem statement
- **4. Design Requirement (***)**
 - Revise from the last semester, so that
 - (a) they are quantified, and
 - (b) constraints (social, cultural, political, environmental, economic, time, etc) (*****)

Final Report Format

• 5. Solution Design (*****)

– Patent-Like Description (all teams) (*****)

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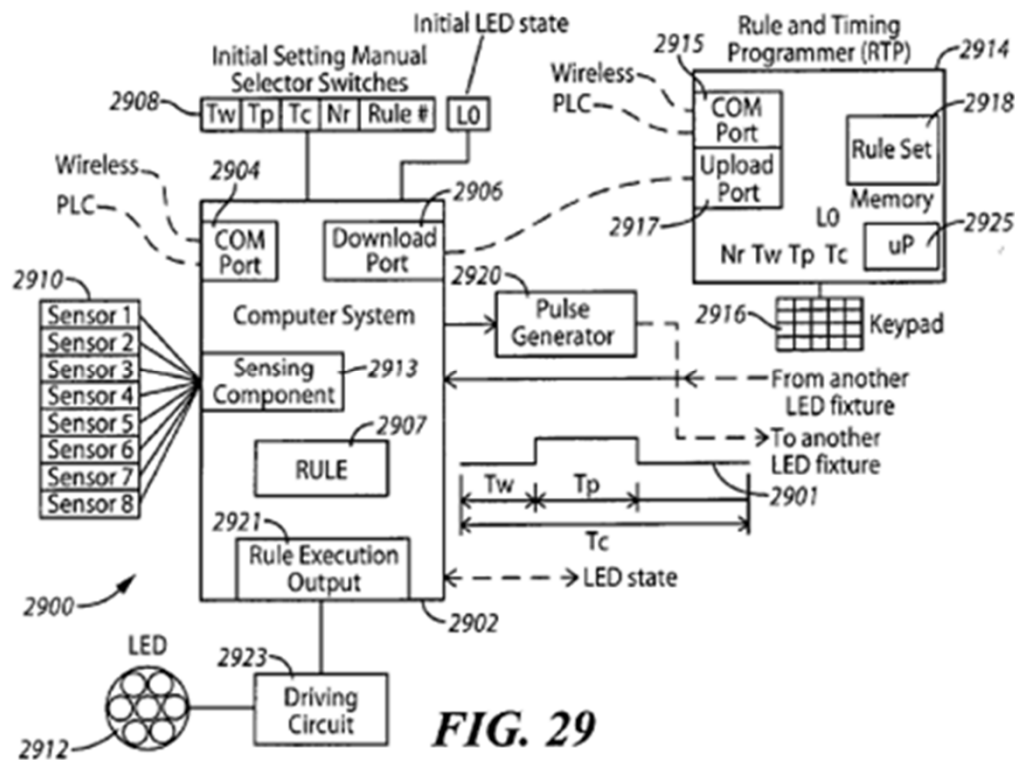


FIG. 29

The initial items can be either determined by the manual selector switches 2908 separately placed in the LED fixture or by downloaded from a Rule and Timing Programmer (RTP) 2914, a separate system not installed in LED fixture. The RTP 2914 includes a processor 2925 and can be realized by a computer system which is capable of wired communication downloading and wireless or PLC communication of the items needed in the LED fixtures that can be typed in by a keypad 2916 attached to the RTP 2914 or available in a memory 2918 inside the RTP 2914. The RTP 2914 includes a COM port (to receive wireless or PLC data) and an upload port 2917 (to upload information to the download port 2906). A rule 2907 is downloaded via COM port 2904. The information from the sensors is processed by sensing components 2913. A rule execution output 2921 (with instructions as to how to drive the LED 2912) drives a driving circuit 2923 that converts the instructions to electrical signals to control the LED 2912.

Another approach for initializing the items mentioned above, whether via manual selector switches 2908 or by RTP 2914, is to obtain the row number (Nr) and a table of the row number and the timing pulse information for the row number, which is stored inside the memory of the controller and retrievable to the computer system, instead of reading them all separately. This alternative approach is advantageous if the initial setting values are to be downloaded or communicated from the RTP 2914.

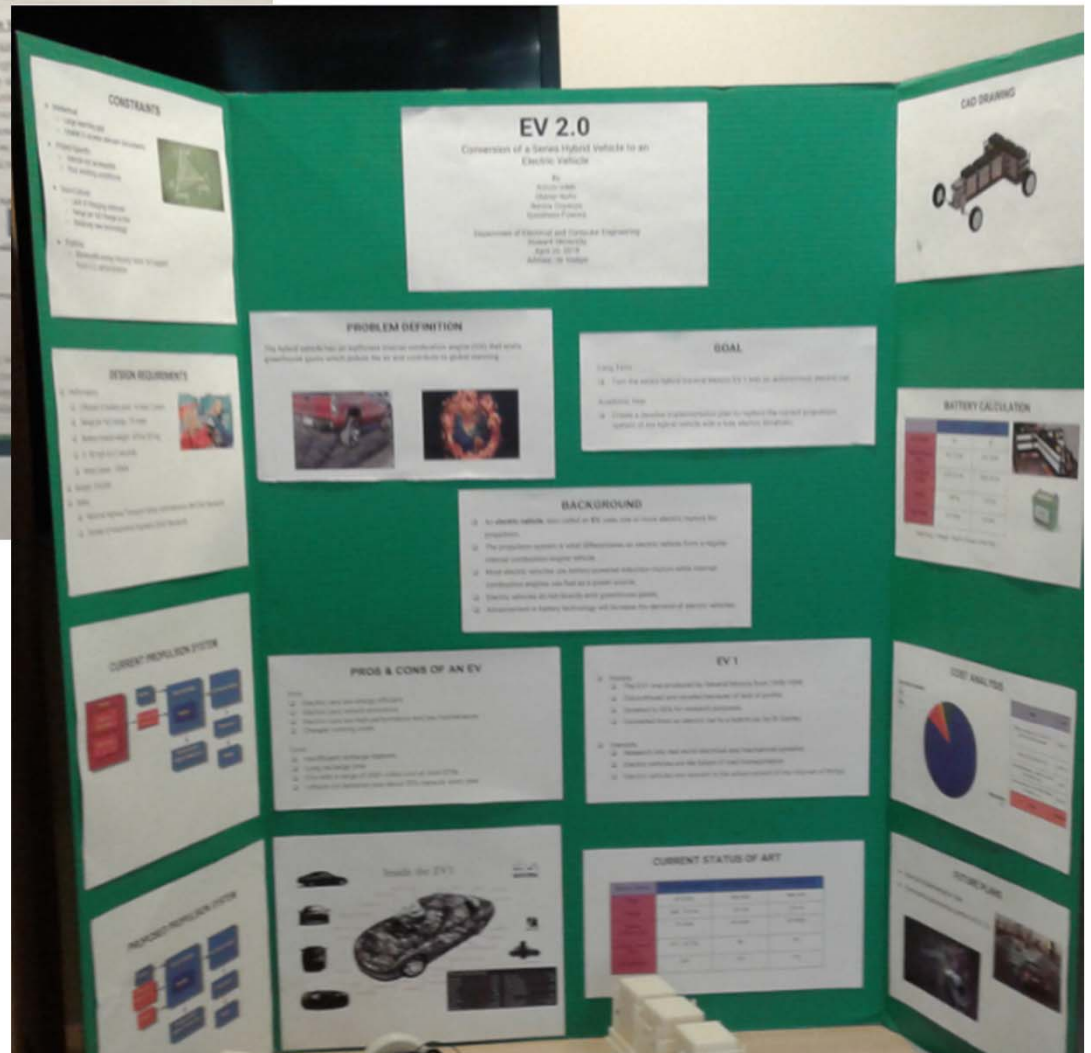
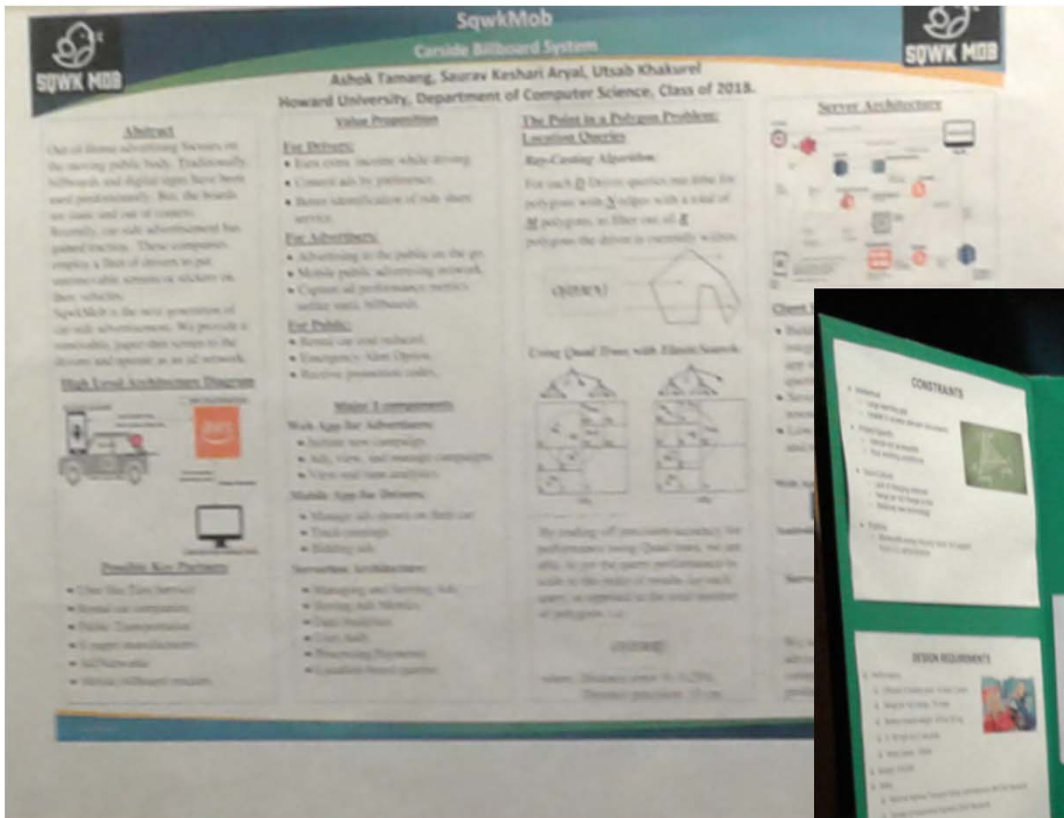
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- **9. Conclusions**
 - Concise and condensed conclusions
- **10. References**

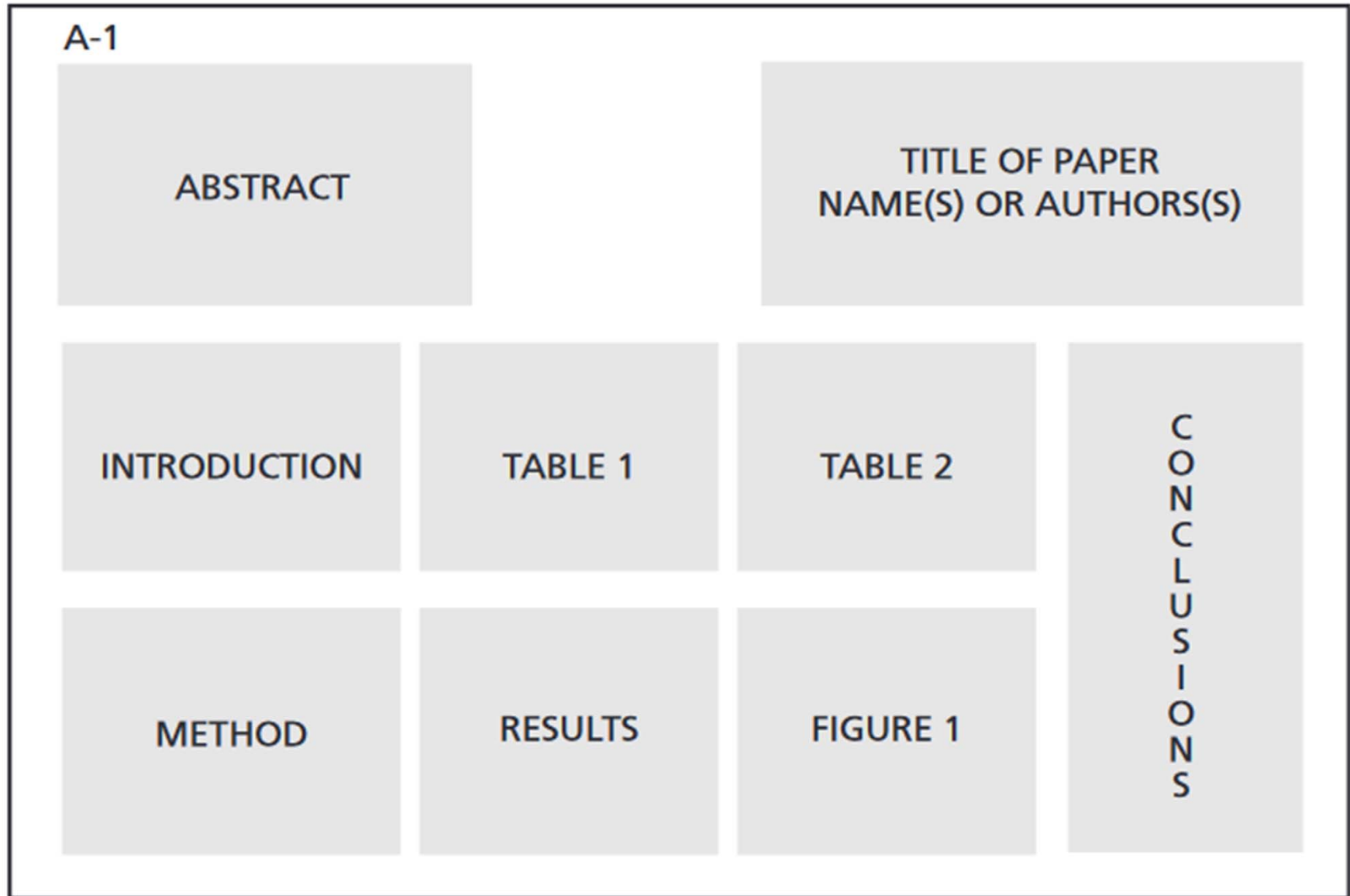
Poster Board Format



Poster Board Format



Poster Board Format



Recap - Toward the Goal Line

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Recap- Goooooooooooooal !!!!

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