IMPETUS CORPORATION

EE 493 Design Studio 1

Weekly Report - 3

16.10.2019 – 23.10.2019

Elif Merve ÖZALP- 2329746
Emre Deniz ŞENEL- 2167237
Fahri TÜREDİ- 2167435
Yunus YİLMAZ- 2167658
Melike YILDIRIM- 2167591

Plans for this Week

In this week, we planned to make a weighted list for project selection. Photo of the company members would be added to Business Statement Report. As mentioned in previous week's report, we would define societal impact and problem statement. Moreover, Elif Merve, Emre Deniz and Fahri were assigned to study on the outlines of the requirements for the standards of the project and Melike and Yunus were assigned to study the deliverables and expected outcomes of the project.

Works Done this Week

We have done the weighted evaluation table for the project selection. The evaluation process is as the following:

- First, every member shared her/his own objectives. Then, we collected them in a poll and voted them. Most popular eight (8) objectives are selected as the evaluation objectives.
- Secondly, every member assigned his/her own personal weight to the objectives according to his/her personal ideas.
- Then, every member's personal weights are normalized between 0 and 1.
- We took the average of the normalized weights of the objectives.
- In a similar approach, every member again gave her/his rate to the projects based on the coverage of the objectives. Again, we took the average.
- Then for each project, we multiply each objective's weights with the averaged project scores.
- Finally, we obtained the overall project scores by summing the scores of each objectives of the projects.

Excel table is available in GitHub. The table with the results is added to Appendix. As a result, Valet Parking Project is selected as a design project.

Furthermore, we briefly discussed the societal impact of our project. Regarding the societal impact of Valet Parking Project, we think that valet vehicle can prevent the accidents resulting from human mistakes since autonomous vehicle is more precise for parking. Also,

with our vehicle, more cars can be fitted in the parking lot compared to ordinary parking. Besides, the system brings time efficiency for daily life. In addition, it compensates the stress while finding the parking lot.

Problem statement of the Valet Parking project is discussed. According to our discussion, the project requires the design of an autonomous vehicle that can park the cars. For customer, the product may offer a user interfaced application to track the state of the car i.e. grid location, requests for parking and delivering.

We, also, checked the rubric of Proposal Report. However, the individual assignments could not be performed this week.

Plans for the Next Week

The individual assignments that could not be performed this week will be studied next week. Moreover, problem statement of the project will be determined detailly. Subsystems of the selected project will be defined and explained. We will also determine our objectives and goals for Valet Parking project.

APPENDIX

Peronal Weight	Normalized Weight	Elif Merve ÖZALP	Smart Connected Cat Feeding & Monitoring System	Autonomous Valet Parking Service	Gimme Fast	Where am I
3	0,06	Software Based	7	5	10	10
7	0,14	Hardware Based	4	8	1	2
6	0,12	Multidisciplinary	3	8	1	2
8	0,16	Adoptability to Everyday Life	10	10	1	3
7	0,14	Mechanic Based	5	8	1	4
5	0,1	Open to Improvement	2	2	2	9
4	0,08	Enjoyable	6	6	1	3
10	0,2	Marketable	10	10	2	7
50						

Peronal Weight	Normalized Weight	Fahri TÜREDİ	Smart Connected Cat Feeding & Monitoring System	Autonomous Valet Parking Service	Gimme Fast	Where am I
3	0,054545	Software Based	9	5	7	9
5	0,090909	Hardware Based	2	4	6	7
7	0,127273	Multidisciplinary	3	8	2	5
8	0,145455	Adoptability to Everyday Life	10	10	3	7
8	0,145455	Mechanic Based	2	9	2	6
7	0,127273	Open to Improvement	8	9	6	7
9	0,16363636	Enjoyable	5	9	3	4
8	0,145455	Marketable	10	10	2	6
55						

Peronal Weight	Normalized Weight	Melike YILDIRIM	Smart Connected Cat Feeding & Monitoring System	Autonomous Valet Parking Service	Gimme Fast	Where am I
4	0,08	Software Based	9	6	8	7
6	0,12	Hardware Based	2	5	6	7
7	0,14	Multidisciplinary	5	8	2	6
5	0,1	Adoptability to Everyday Life	10	7	2	4
8	0,16	Mechanic Based	2	9	2	5
8	0,16	Open to Improvement	6	9	3	4
9	0,18	Enjoyable	6	10	1	3
3	0,06	Marketable	9	9	1	4
50						

Peronal Weight	Normalized Weight	Emre Deniz ŞENEL	Smart Connected Cat Feeding & Monitoring System	Autonomous Valet Parking Service	Gimme Fast	Where am I
5	0,1	Software Based	9	7	7	9
5	0,1	Hardware Based	4	8	8	8
5	0,1	Multidisciplinary	2	9	9	6
8	0,16	Adoptability to Everyday Life	10	9	1	1
5	0,1	Mechanic Based	2	9	4	8
9	0,18	Open to Improvement	10	9	2	5
4	0,08	Enjoyable	6	8	1	6
9	0,18	Marketable	9	9	1	7
50						

Peronal Weight	Normalized Weight	Yunus YİLMAZ	Smart Connected Cat Feeding & Monitoring System	Autonomous Valet Parking Service	Gimme Fast	Where am I
2	0,035714	Software Based	10	8	10	8
8	0,142857	Hardware Based	2	10	5	7
8	0,142857	Multidisciplinary	2	10	4	7
7	0,125	Adoptability to Everyday Life	6	9	1	4
5	0,089286	Mechanic Based	1	10	4	6
9	0,160714	Open to Improvement	5	10	1	6
10	0,178571	Enjoyable	1	8	3	4
7	0,125	Marketable	4	7	1	3
56						

Overall	Overall Weight	Smart Connected Cat Feeding & Monitoring System	Autonomous Valet Parking Service	Gimme Fast	Where am I
Software Based	0,066052	0,581257	0,409522	0,554836	0,568047
Hardware Based	0,118753	0,332509	0,831273	0,617517	0,73627
Multidisciplinary	0,126026	0,378078	1,083823	0,453694	0,655335
Adoptability to Everyday Life	0,138091	1,270436	1,242818	0,220945	0,524745
Mechanic Based	0,126948	0,304675	1,142532	0,330065	0,736299
Open to Improvement	0,145597	0,902704	1,13566	0,407673	0,902704
Enjoyable	0,136442	0,654919	1,118821	0,245595	0,545766
Marketable	0,142091	1,193564	1,278818	0,198927	0,767291

Total					
	5,618143	8,243268	3,029252	5,436457	