[별표1]

**Undergraduate Research Program Report**

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| --- | --- | --- | --- |
| **Department** | | **Full name** | **Student number** |
| ISE | |  |  |
| **Research title** |  | | |
| **Research period** | 2024.03.04~ 2024.06.21 | | |
| **Summary of Research Findings** | | | |
| *※ In the case of research results, even if the same research was conducted, each participant should write differently.*  *Example) Even if you conducted research A with other students in the same laboratory, please describe the research results (A-1, A-2) and write your impressions about the parts you are responsible for.* | | | |
| 2024. 06.00  Name : \_\_\_\_\_\_\_\_(sign)  **인하융합연구원장** 귀하 | | | |

[별표2]

**Undergraduate Research Program Activity Journal**

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| **Department** | **ISE** | | **Student number** | **12200295** | | **Name** | **Khaydarov Shokhzod**  **(sign)** | |
| **Participation**  **program name** | **2024-1 Semester Undergraduate Research Program (ISE Department, ISE9202 Laboratory, Professor in charge: Hakil Kim)** | | | | | | | |
| **Main role** |  | | | | | | | |
| **Activities** | **Date/time**  **(activity hours)** | **Place** | | | **Activity details** | | | **Note** |
| 2024.03.07.  11:30 ~ 13:30 (2H) | INHA University, 5S107 | | | Receiving the orientation, dividing tasks and getting advises for upcoming challenges. | | |  |
| 2024.(03.08.-03.09)  2 x[ 18:00 ~ 21:00] (6H) | At Home | | | Researching new advancements in A.D.; Creating Flowchart for our workflow for A.D. | | | Navigation&Control, Object Detection&Recognition. |
| 2024.03.14.  11:30 ~ 13:30 (2H) | INHA University, 5S107 | | | Getting feedback for out work from the Professor; Working on new challenges | | | ROS, Traffic Sign Recognition. |
| 2024.(03.15.-03.16)  2 x[ 18:00 ~ 21:00] (6H) | At Home | | | Working on: Pedestrian Detection, Traffic Sign Recognition and Traffic Light Recognition Algorithms. | | |  |
| 2024.(03.22.-03.23)  2 x[ 18:00 ~ 21:00] (6H) | At Home | | | Working on simple panoptic segmentation models | | | [Detectron2](https://github.com/Shokhzod2202/UndergraduateResearchProgram/blob/main/Copy_of_DETR_panoptic.ipynb) |
| 2024.(03.29.-03.30)  2 x[ 18:00 ~ 21:00] (6H) | Inha University | | | Researching Current state of segmentation methods and advantages of each method. | | | [IEEE Xplore: Joint Multiclass Obj. Detect.](https://ieeexplore.ieee.org/document/10098794) |
| 2024.(04.05.-04.06)  2 x[ 18:00 ~ 21:00] (6H) | At Home | | | Working on YOLO V8 Custom Instance Segmentation | | | [Github Link](gt) |
| 2024.(04.12.-04.13)  2 x[ 18:00 ~ 21:00] (6H) | Inha University | | | Researching BDD100K, Mapillary Vistas, Cityscapes. | | |  |
| 2024.(04.19.-04.20)  2 x[ 18:00 ~ 21:00] (6H) | At Home | | | Drivable area segmentation. | | |  |
| 2024.(04.26.-04.27)  2 x[ 18:00 ~ 21:00] (6H) | Inha University | | | Drivable area segmentation with Panoptic Segmentation. | | |  |
| **Total activity time** | *(total working hours should be at least 90 hours)* | | | | | | | |
| **Professor**  **Check and sign** | **Hakil Kim (sing)**  **Vijay Kakani (sing)** | | | | | | | |

**※ (sign) handwritten 必**

[별표3]

**Undergraduate Research Program Activity Journal**

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| **Department** | **ISE** | | **Student number** | **12200295** | | **Name** | **Khaydarov Shokhzod**  **(sign)** | |
| **Participation**  **program name** | **2024-1 Semester Undergraduate Research Program (ISE Department, ISE9202 Laboratory, Professor in charge: Hakil Kim)** | | | | | | | |
| **Main role** |  | | | | | | | |
| **Activities** | **Date/time**  **(activity hours)** | **Place** | | | **Activity details** | | | **Note** |
| 2024.(05.03.-05.04)  2 x[ 18:00 ~ 21:00] (6H) | Home | | | Reading Article: UPSNet: A Unified Panoptic Segmentation Network | | | [https://github.com/](")  [uber-research/UPSNet.](") |
| 2024.(05.10.-05.11)  2 x[ 18:00 ~ 21:00] (6H) | University | | | Installing Ubuntu, ROS, RVIZ, Gazibo for project | | | the starting positions of the left and right lanes. |
| 2024.(05.17.-05.18)  2 x[ 18:00 ~ 21:00] (6H) | University | | | Working on plotHistogram() Function | | | positions boxes |
| 2024.(05.24.-05.25)  2 x[ 18:00 ~ 21:00] (6H) | Home | | | Curve Fitting slide\_window\_search() Function | | | Second-degree Polynomial |
| 2024.(05.31.-06.1)  2 x[ 18:00 ~ 21:00] (6H) | Home | | | Working on general\_search() Algorithms | | | Steering Amgle Prediction. |
| 2024.(06.07.-06.08)  2 x[ 18:00 ~ 21:00] (6H) | Home | | | Working on Measure\_lane\_curvature() function | | | np.polyfit(). xm\_per\_pix and ym\_per\_pix |
| 2024.(06.14.-06.15)  2 x[ 18:00 ~ 21:00] (6H) | University | | | Visualization and Main Function | | | Drow\_lane\_lines, offCenter, main() |
| 2024.(06.21.-06.22)  2 x[ 18:00 ~ 21:00] (6H) | Coffee Shop | | | Finalizing Research Program | | |  |
|  |  | | |  | | |  |
|  |  | | |  | | |  |
| **Total activity time** | *(total working hours should be at least 90 hours)* | | | | | | | |
| **Professor**  **Check and sign** | **Hakil Kim (sing)**  **Vijay Kakani (sing)** | | | | | | | |

**※ (sign) handwritten 必**