

**学位论文开题报告登记表**

**Thesis/Dissertation Proposal Form**

|  |  |
| --- | --- |
| **学号 Student ID** |  |
| **姓名 Name** |  |
| **学生类别 Degree Program** | 选择一项。 |
| **学习形式 Study Mode** | 选择一项。 |
| **导师 Supervisor(s)** |  |
| **论文题目 Thesis title** |  |
| **学院 School** |  |
| **专业 Major** |  |
| **开题日期 Date** |  |
| **开题地点 Venue** |  |

填 报 说 明

**Instruction**

1. 校本部研究生的开题报告应通过[数字交大](http://my.sjtu.edu.cn/)在线提交申请。

The application for thesis/dissertation proposal should be submitted through [My SJTU](http://my.sjtu.edu.cn/).

1. 开题报告为A4大小，于左侧装订成册。各栏空格不够时，请自行加页。

This form should be printed with A4 papers and bound together on the left. If the space left is not enough, please feel free to add extra pages.

1. 博士生导师可以根据博士生学位论文选题情况自行确定是否进行开题查新，博士学位论文开题查新报告应由查新工作站提供。

The supervisor should decide, based on the proposed topics, whether a novelty assessment report is needed or not, which should be conducted by an authorized novelty assessment department.

1. 开题报告通过后，分别由研究生、导师、学科各存档一份。

Upon passing the dissertation proposal, three copies of this form should be prepared, one for each of the doctoral candidate, the supervisor, and the academic discipline.

1. 医学院研究生如果以函评形式开题，开题地点请填写“函评”，专家组组长签名由导师签名。

For students in the School of Medicine, if the dissertation proposal is conducted via peer review, the “Proposal venue” shall be filled with “peer review” and the “Signature of Committee Chair” shall be signed by the supervisor.

1. **开题报告正文 Thesis/Dissertation Proposal Report**

|  |  |
| --- | --- |
| 论文题目  Proposed Title | **基于深度二进制描述符的视觉SLAM系统开发和重定位** |
| 研究课题来源  Source of Research Project | 请在合适选项前画√ Please select proper options by “√”.  国家自然科学基金课题 NSFC Research Grants  国家社会科学基金 National Social Science Fund of China  国家重大科研专项 National Key Research Projects  其它纵向科研课题 Other Governmental Research Grants  企业横向课题 R&D Projects from Industry  自拟课题 Self-proposed Project  其它 Other |

1. **请综述课题****国内外研究进展、现状、挑战与意义，可分节描述。博士生不少于10,000汉字，硕士生不少于5,000汉字。请在文中标注参考文献。 Please review the frontier, current status, challenges and significance of the research topic. The citations should be marked in the context and listed in order at the end of this section. No less than 8,000 words for doctoral students and 4,000 words for master students if written in English.**

参考文献 Reference：

1. Author List, *paper title*, Journal **Volume**, pages, year. （参考格式，可不同，但信息须完整、规范。Reference format, could be different but all necessary information should be provided.）
2. Authors, *book name*, publisher, pages, year. （参考格式，可不同，但信息须完整、规范。Reference format, could be different but all necessary information should be provided.）
3. **课题研究目标、主要研究内容和拟解决的关键问题。 Research objectives, main contents and key issues to be solved.**

训练深度神经网络，用路侧激光雷达对道路上的车辆和行人进行检测，BEV（Bird Eye View）定位和运动轨迹预测。由于缺乏路侧端数据集，如何增强模型从车载端到路侧端的泛化能力，提高模型的准确度非常关键。

1. **拟采取的研究方法、****研究方案及其可行性分析。Research methods and research scheme to be adopted and feasibility analysis.**

设计卷积神经网络，输入点云序列和地图信息，输出检测定位和轨迹预测结果，在公开数据集Argoverse上进行网络模型的训练，移植到路侧端，测试效果并进行改进。

1. **课题的创新点 Novelties of the proposed topic.**

1在缺乏路侧端数据集的条件下，训练深度神经网络实现路侧端感知定位

2设计能够同时实现检测跟踪预测的端到端神经网络

1. **计划进度、预期成果 Research schedule, and expected outcomes**

2021.2.1前完成开题

2021.2.1-2021.4.1编写神经网络，训练模型

2021.4.1-2021.6.1测试模型效果，改进模型

2021.6.1后撰写报告

1. **与本课题有关的工作积累、****已有的研究工作成绩。Prior experience and accomplished achievements related to the proposed topic.**

基于路侧监控相机的车辆行人检测跟踪

基于场端十六线激光雷达阵列的车辆定位研究

**本人承诺：开题报告中的内容真实无误，若有不实，愿承担相应的责任和后果。****I hereby declare and confirm that the details provided in this Form are valid and accurate.** **If anything untruthful found, I will bear the corresponding liabilities and consequences.**

**学生签字/Signature of Student： 日期/Date：** 2020-12-18

全文字数统计：1559。

**二、开题报告评审 Review of the Thesis/Dissertation Proposal** (注：通过数字交大在线流程进行时，本页及后续内容不用填写、上传；特殊情况下，经研究生院同意，可用此表线下进行开题报告记录汇报时，需填写本页及后续内容。This section does not need to be filled or uploaded to the system if the thesis/dissertation proposal application is submitted through My SJTU.)

1. **课程学习情况 Coursework** （本栏由研究生填写，导师负责核对确认This table shall be filled by the graduate student, and verified by the supervisor.）

|  |  |
| --- | --- |
| 培养计划中是否尚有未通过课程？Is there any unpassed course remained in the training plan? | ○ 是Yes ○ 否No |
| 培养方案要求总学分、GPA学分  Total credits and GPA credits required by the program |  |
| 培养计划总学分、GPA学分  Total credits and GPA credits of the training plan |  |
| 已修课程总学分、GPA学分  Total credit and GPA credits acquired hitherto |  |
| 已修课程GPA（硕士生、直博生）  GPA of the finished courses (if applicable) |  |

1. **导师意见Comments of Supervisor**
2. 请确认课程学习情况信息的准确性 Please confirm if the information provided in the *Coursework* section is valid/accurate or not:

○ 准确无误Valid and accurate ○ 有不确切处Inaccurate

1. 请对研究生开题报告规范性，论文选题的学术性（学术型）、实践性或实用性（专业型）、前沿性，研究方案的可行性等进行评述。Please comment on the thesis/dissertation proposal.
2. 对研究生学业进展、研究能力、治学态度的综合评价。Please comment on the academic progress, research potential, altitude of the graduate student.

**签名/Signature： 日期/Date：** 2020-12-18

1. **专家组评审 Committee Review**
2. 专家组成员 **Review Committee Members**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **序号**  **Index** | **姓名 Name** | **工号**  **Work ID** | **职 称**  **Title** | **工 作 单 位**  **Affiliation** | **本人签名**  **Signature** |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |
| 4 |  |  |  |  |  |
| 5 |  |  |  |  |  |
| **秘书** |  |  |  |  |  |

1. **专家组意见Comments**
2. **审查结论/Conclusion：**

○ 通过/Pass ○ 不通过/Fail

（通过票数/Votes for pass: ； 不通过票数/Votes for fail: ）

**组长签名/Signature of Committee Chair： 日期/Date：** 2020-12-18

1. **院系意见School Review**

○ 通过 Pass。

○ 不通过 Fail。

**○** 建议下次重新开题 Retake the thesis/dissertation proposal next semester (仅限第一次开题未通过时)

**○** 建议转为硕士生培养 Transfer to master program (仅限博士生第二次开题未通过时)

**○** 建议退学 Suggest to withdraw from the university

主管领导签字Signature 盖章Stamp 日期Date:

**备注Remarks:**

注：研究生开题报告评审记录应通过数字交大在线流程系统提交，本表格不存档。特殊情况下，经研究生院同意，可用此表格线下进行；在此情况下，本表格由院系研究生教务办负责存档。考核完成后，院系应在一周内将考核结果提交至研究生院。

**附件/Attachment:**

**查新中心站管理编号/ No. of the Novelty Assessment Department:**

**科技查新报告**

**Sci-tech Novelty Assessment Report**

|  |  |
| --- | --- |
| **课题名称 Project Title：** |  |
| **委托单位 Entrusted by:** |  |
| **报告日期 Report date:** |  |
| **认证单位 Certified by:** |  |