**STRUCTURE OF REVIEW 01 PAPER:**

**TITTLE:**

**ABSTRACT:**

* About SLAM
* About VSLAM
* Algorithms and approaches
* keywords

**INTRODUCTION:**

* About SLAM
* About VSLAM
* About Algorithms, types of cameras and approaches
* Discuss of each section that is included

**ELEMENTS OF VSLAM:**

* Basic modules
* Camera poses and mapping
* Additional modules for stable and accurate vSLAM like, relocalization and global map optimization
* Loop closing
* Summary

**RELATED TECHNOLOGIES:**

* Visual odometry
* Structure from motion

**FEATURE BASED METHODS:**

* MonoSLAM
* PTAM
* Comparison b/w MonoSLAM and PTAM
* Techniques on global map optimization
* Summary

**DIRECT METHODS:**

* DTAM
* LSD-SLAM
* SVO and DSO
* Summary

**RGB-D SLAM:**

* Difference with monocular vSLAM
* Kinect Fusion
* SLAM++
* Techniques on RGB-D VO and Global map optimization

**OPEN PROBLEMS (CHALLENGES):**

* Pure rotation
* Map initialization
* Estimating intrinsic camera parameters
* Rolling shutter distortion
* Scale ambiguity

**BENCHMARKING:**

* It about the datasets which are suitable for which environments and algorithms.
* Datasets are TarkMark, Tsukuba, TUM RGB-D, KITTI.
* Table for comparison of representative algorithms.

**CONCLUSIONS:**

* What are explain in all the sections previously.
* Comparing all methods and algorithms
* At last adding the code if needed

**ENDNOTES:**

* Paste the code github link

**REFERENCES:**

**STRUCTURE OF REVIEW 02 PAPER:**

**TITTLE:**

**ABSTRACT:**

* What is the SLAM related methods taken
* Working and difficulties
* keywords

**INTRODUCTION:**

* Why SLAM
* About VSLAM methods
* About vSLAM Algorithms they used
* In which software they used this algorithm.
* And at last comparison and analysis of different slam in indoor environment.

**SYSTEM SETUP:**

* Vision configuration of UGV prototype
* Web camera characteristics
* Snapshots of Forward and side looking on the UGV

**TESTS AND COMPARISION OF ROS-BASED MONOCULAR SLAM METHODS:**

* Results of Monocular SLAM tests – here they explained about the results analysis what they got.
* Explained the algorithms tests which they have worked.
* Comparative analysis of monocular SLAM algorithms – they have mentioned all the parameters in table.
* After the preparation of table, they have explained that table in theoretically.

**CONCLUSIONS:**

* Here first they have discussed about the different SLAM algorithms that they performed.
* And the discuss about the results
* They also discussed the challenges they faced.

**ACKNOWLEDGEMENTS:**

**REFERENCES:**

**STRUCTURE OF REVIEW 03 PAPER:**

**TITTLE:**

**ABSTRACT:**

* What is the SLAM and vSLAM
* What is the motive of the paper and what algorithms they have used
* Index terms

**INTRODUCTION:**

* History like why camera is better than other sensors
* Why vSLAM
* Next, they given about the 3 algorithms they have done and also comparison
* They explain about dataset benchmarking
* They explain the problem and also, they explain which software is used

**RELATED WORK:**

* Explain the different types of algorithms
* Why they are used based on the mentioned table by another’s paper.

**VISUAL SLAM APPROACHES:**

* Here they explained about the 3 algorithms that they have done

**SYSTEM SETUP:**

* Target service platform’s – explain about sensors where we can use
* Environment for experiments – your PC setup and other configuration

**DATASETS:**

* Explained about each and every dataset that they have used
* And also mentioned the environment conditions
* And which dataset is suitable for different environments

**EXPERIMENT AND ANALYSIS:**

* It like results
* Here they shown the dataset name and type
* And explained the pose and optimization
* And they shown the indoor and outdoor environment results by using three algorithms

**LIMITATIONS:**

* Here they expressed their challenges

**CONCLUSION:**

**REFERENCES:**

**STRUCTURE OF REVIEW 04 PAPER:**

**TITTLE:**

**ABSTRACT:**

* About SLAM
* About the technologies and the paper they have written
* Keywords

**INTRODUCTION:**

* About Robotics
* About ROS
* Structural chart of process (like all sections)
* Discuss about section they included
* About SLAM
* History of SLAM
* About vSLAM and techniques
* About their paper they mentioned some points

**VISUAL SLAM PARADIGM:**

* Pattern of VSLAM
* Discussion of VSLAM and their process
* Data acquisition and system initialization
* System Localization
* System map formation
* System loop closure and process tuning
* Diagram od process

**VISUAL SLAM METHODS:**

* About VSLAM
* About environment and surroundings
* About cameras types
* About different types of SLAMS algorithms, they mentioned
* All SLAM algorithms diagrams
* And some differences b/w them
* Comparison table

**SLAM EVOLUTION AND DATASETS:**

* History of vSLAM datasets
* Explanation of different type od datasets

**GUIDELINES FOR EVALUATING AND VISUAL SLAM METHODS:**

* Robustness and accuracy
* Computational efficiency and real-time requirements
* Flexible hardware integration
* System scalability
* Adapting to dynamic environments
* Open-source availability and community support
* Map data representation and storage

**CONCLUSIONS:**

* Here first they have discussed about the different SLAM algorithms that they performed.
* And the discuss about the results
* They also discussed the ros environment

**REFERENCES:**