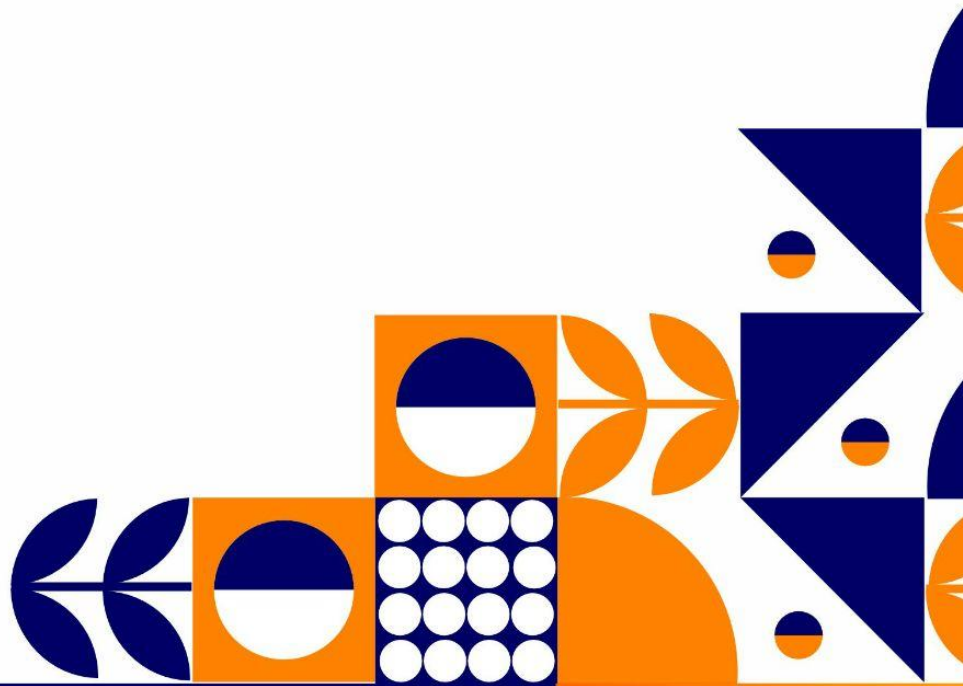


**INTERNAL QUALITY ASSURANCE SYSTEM
UNIVERSITAS DIPONEGORO**
RESEARCH STANDARDS





**INTERNAL QUALITY ASSURANCE SYSTEM OF
UNIVERSITAS DIPONEGORO RESEARCH STANDARDS**



**UNIVERSITAS DIPONEGORO
2020**

Foreword

Diponegoro University (UNDIP) as one of the higher education institutions in Indonesia, through its vision and mission, is committed to contributing to the country and society by producing quality human resources to achieve a just and prosperous society in accordance with Pancasila and the 1945 Constitution.

The Internal Quality Assurance System is one of the organizational aspects built by the Leadership of Diponegoro University, in order to achieve the expected quality standards. However, until now, not everything has been written down in a quality manual.

Realizing the importance of a system in an organization needs to be outlined comprehensively in a quality manual so that it can serve as a guide for managers to carry out their duties and as a basis for improving existing systems.

Vision and Mission of LPPM Diponegoro University

The Undip Institute for Research and Community Service has formulated the following vision:

"Being at the forefront in supporting the achievement of the Vision of Diponegoro University"

To achieve this vision, the Undip Research and Community Service Institute has formulated the following mission:

- a. Implementing and developing professional research governance and community service,
- b. Facilitate the achievement of research outcomes and community service,
- c. Implementing and developing partnership collaboration in research, implementation of science and technology and community service,
- d. Implementing innovative, transparent and accountable university governance.

1. DEFINITION OF TERMS

Research result standards are the minimum criteria regarding the quality of research results.

2. STANDARD RATIONALE

To determine the increase in the quality and quantity of research, it is necessary to have certain standards as a benchmark or basis for monitoring, evaluation and further development. With these considerations in mind, Diponegoro University through LPPM sets research standards in which there are standards for research results. Research result standards are the minimum criteria for the quality of research activities.

3. STANDARD CONTENT STATEMENT

1. Diponegoro University research result standards are the minimum criteria regarding the quality of research results.
2. Diponegoro University's research results are directed towards developing science and technology, as well as improving community welfare and the nation's competitiveness.
3. The research results as referred to in point (a) are all outputs produced through activities that meet scientific principles and methods systematically in accordance with scientific autonomy and academic culture.
4. Student research results must meet the provisions referred to in point (b), graduate learning outcomes, and regulatory provisions at Diponegoro University.
5. Research results that are not confidential, do not disturb and/or do not endanger the public or national interest must be disseminated widely by means of seminars, publications, patents, and/or other means that can be used to convey research results to the public.

4. STANDARD ACHIEVEMENT STRATEGY

To achieve the standard research results, the following strategies are implemented:

1. Develop strategic plans and research plans to improve the quality and quantity of research.
2. Publishing a research guidebook as a guide for the academic community of Diponegoro University.
3. Disseminate research guidebooks to Diponegoro University academics.
4. Holding training/workshops on research activities for Diponegoro University academics.
5. Determine research performance indicators that are aligned with the Key Performance Indicators (KPI) set by DRPM.

5. STANDARD ACHIEVEMENT INDICATORS

The following are indicators for achieving standard research results:

- a. Publication of research results in journals.
- b. Publication of research results at the Scientific Forum.
- c. Publication of research results in textbooks/texts.
- d. Number of Intellectual Property Rights obtained from research results.
- e. Establishment of a Business Unit based on research results.
- f. Employment Contract made based on research results.
- g. Other outcomes obtained from research results.

6. INTERACTION BETWEEN STANDARDS

Research results are the core or main part of a research. Therefore, research result standards are the core of all research standards. All research standards such as process standards, assessment standards, management standards, content standards, researcher standards, financing and funding standards, and infrastructure standards will interact with outcome standards.

7. PARTIES INVOLVED IN COMPLIANCE WITH STANDARDS

Parties involved in fulfilling research result standards:

- a. The Rector is the head of the university
- b. Institute for Research and Community Service
- c. Heads of Faculties, Departments and Study Programs
- d. Researcher
- e. Lecturer
- f. Student
- g. Research Partners

8. RELATED DOCUMENT

Related documents are regulations related to research.

9. REFERENCES

1. Minister of Research, Technology and Higher Education Regulation Number 44 of 2015 concerning National Higher Education Standards.
2. Minister of Education and Culture Regulation Number 50 of 2014 concerning Quality Assurance of Higher Education.
3. Guidebook for Implementing Research & Community Service in Higher Education, Higher Education.

1. DEFINITION OF TERMS

Diponegoro University research content standards are the minimum criteria regarding the depth and breadth of research material.

2. STANDARD RATIONAL

To determine the increase in the quality and quantity of research, it is necessary to have certain standards as a benchmark or basis for monitoring, evaluation and further development. With these considerations in mind, Diponegoro University through LPPM sets research standards which include research content standards. Research content standards are minimum criteria regarding the depth and breadth of research material.

3. STANDARD CONTENT STATEMENT

- a. Research content standards are minimum criteria regarding the depth and breadth of research material.
- b. The depth and breadth of research material as referred to in paragraph (1) includes material on basic research, applied research and development research.
- c. Material in basic research as intended in paragraph (2) must be oriented towards research outputs in the form of explanations or discoveries to anticipate new symptoms, phenomena, rules, models or postulates.
- d. Material in applied research as intended in paragraph (2) must be oriented towards research outputs in the form of innovation and development of science and technology that are beneficial to society, the business world and/ or industry.
- e. Material in development research referred to in paragraph (2) must be oriented towards research outputs in the form of models/products/prototypes that have been tested in an actual environment that is beneficial for

society, business world, and/or industry.

- f. Material in basic research, applied research and development research includes special study material of national interest.
- g. Material in basic research, applied research and development research must contain the principles of usefulness, up-to-dateness and anticipating future needs.

4. STANDARD ACHIEVEMENT STRATEGY

1. To achieve research content standards, the following strategies are implemented:
2. Develop strategic plans and research plans to improve the quality and quantity of research.
3. Publishing a research guidebook as a guide for the academic community of Diponegoro University.
4. Disseminate research guidebooks to Diponegoro University academics.
5. Holding training/workshops on research activities for Diponegoro University academics.

5. STANDARD ACHIEVEMENT INDICATORS

The indicator for achieving research content is the formation of the Diponegoro University Research Master Plan (RIP Undip). The development direction of Diponegoro University is outlined in detail in Undip's RIP.

6. INTERACTION BETWEEN STANDARDS

Content standards are closely related to outcome standards, process standards, assessment standards, and management standards in research.

7. PARTIES INVOLVED IN COMPLIANCE WITH STANDARDS

Parties involved in fulfilling research result standards:

- a. The Rector is the head of the university
- b. Institute for Research and Community Service
- c. Heads of Faculties, Departments and Study Programs
- d. Researcher
- e. Lecturer
- f. Student
- g. Research Partners

8. RELATED DOCUMENTS

Related documents are regulations related to research.

9. REFERENCES

- a. Minister of Research, Technology and Higher Education Regulation Number 44 of 2015 concerning National Higher Education Standards.
- b. Minister of Education and Culture Regulation Number 50 of 2014 concerning Quality Assurance of Higher Education.
- c. Guidebook for Implementing Research & Community Service in Higher Education, Higher Education.

1. DEFINITION OF TERMS

- a. Research is an activity carried out according to scientific principles and methods systematically to obtain information, data and information related to understanding and/or testing a branch of science and technology.
- b. Research process standards are minimum criteria regarding research activities consisting of planning, implementation and reporting.
- c. Research activities are activities that fulfill scientific principles and methods systematically in accordance with scientific autonomy and academic culture.
- d. Research activities must consider quality standards, work safety, health, comfort and security of researchers, the community and the environment.
- e. Research activities carried out by students in order to carry out final assignments, theses, theses or dissertations must meet the provisions as referred to in points c and d, graduate learning outcomes, and university regulations.

2. STANDARD RATIONAL

As stated in the Mission of Diponegoro University, including improving the quality and quantity of research and improving the quality and quantity of community service, the Institute for Research and Community Service (LPPM) was formed to manage, coordinate, facilitate, provide adequate funding and infrastructure to support research and community service. To determine the increase in the quality and quantity of research and community service, it is necessary to have certain standards as a benchmark or basis for evaluation and further development. With these considerations in mind, Diponegoro University, through LPPM, has established standards for research and community service which will become guidelines and benchmarks for university leaders.

students who are all responsible for improving the quality and quantity of research and community service.

3. STANDARD CONTENT STATEMENT

- a. The research process is determined by the Institute for Research and Community Service (LPPM) in accordance with the Regulation of the Minister of Research, Technology and Higher Education of the Republic of Indonesia Number 44 of 2015.
- b. The research process must comply with the provisions in the research guidebook
- c. published by LPPM Undip.
- d. Researchers carry out research based on the research process established by LPPM.
- e. The research process consists of planning, implementation, evaluation and monitoring, and reporting.
- f. Research activities are activities that fulfill scientific principles and methods systematically in accordance with scientific autonomy and academic culture.
- g. Research activities must consider quality standards, work safety, health, comfort and security of researchers, society and the environment.
- h. To fulfill the research process, LPPM creates criteria and indicators that need to be achieved by researchers in carrying out research
- i. Research activities carried out by students in order to carry out final assignments, theses, theses and dissertations must meet provisions (e) and (f), graduate learning outcomes, and regulatory provisions set by Diponegoro University.

4. STANDARD ACHIEVEMENT STRATEGY

To achieve the research process:

- a. LPPM Undip publishes a research guidebook as a guide for Undip researchers and students.
- b. LPPM Undip socializes research guidebooks to Undip researchers and students.
- c. LPPM Undip holds training/workshops on research activities for Undip researchers and students.
- d. LPPM Undip informs and facilitates research grants originating from outside Undip.
- e. LPPM Undip organizes and provides competitive research grants to researchers and students.
- f. LPPM Undip held a scientific forum.
- g. LPPM organizes internal reviewer recruitment.

5. STANDARD ACHIEVEMENT INDICATORS

- a. Organizing Scientific Forums
- b. Quality Assurance and HR SOPs
- c. Recruitment of Internal Reviewers

- d. Reporting Research Results
- e. Follow-up to Research Results
- f. Training/workshop activities were held
- g. Award/Reward System

6. INTERACTION BETWEEN STANDARDS

Research assessment standards support assessment standards, results standards, management standards, content standards, financing and funding standards, and research management standards.

7. PARTIES INVOLVED IN COMPLIANCE WITH STANDARDS

Parties involved in fulfilling standards:

- a. The Rector is the head of the university
- b. Institute for Research and Community Service
- c. Heads of Faculties, Departments and Study Programs
- d. Researcher
- e. Lecturer
- f. Student
- g. Research Partners

8. RELATED DOCUMENT

This standard must be accompanied by supporting regulations.

9. REFERENCE

- a. Minister of Research, Technology and Higher Education Regulation Number 44 of 2015 concerning National Higher Education Standards.
- b. Minister of Education and Culture Regulation Number 50 of 2014 concerning Quality Assurance of Higher Education.

1. DEFINITION OF TERMS

- a. Research is an activity carried out according to scientific principles and methods systematically to obtain information, data and information related to understanding and/or testing a branch of science and technology.
- b. Research assessment standards are the minimum criteria for assessing the research process and results.
- c. The assessment of the research process and results as referred to in letter (b) is carried out in an integrated manner that meets at least the following elements:
 - 1. educational, which is an assessment to motivate researchers to continue to improve the quality of their research;
 - 2. objective, which is an assessment based on criteria that is free from the influence of subjectivity;
 - 3. accountable, which is an assessment of research carried out using clear criteria and procedures that are understood by the researcher; And
 - 4. transparent, which is an assessment whose procedures and assessment results can be accessed by all stakeholders.
- d. Assessment of research processes and results must comply with the assessment principles as referred to in letter (c) and pay attention to conformity with results standards, content standards and research process standards.
- e. Research assessment can be carried out using methods and instruments that are relevant, accountable, and can represent measures of process performance achievement as well as research result performance achievement.
- f. Research assessments carried out by students in the context of preparing final assignment reports, theses, theses or dissertations are regulated based on regulatory provisions at Diponegoro University (Undip).

2. STANDARD RATIONALE

As stated in the Mission of Diponegoro University, including improving the quality and quantity of research and increasing the quality and quantity of community service, the Institute for Research and Community Service

to the Community (LPPM) was formed to manage, coordinate, facilitate, provide funding and adequate infrastructure to support research and community service. To determine the increase in the quality and quantity of research and community service, it is necessary to have certain standards as a benchmark or basis for evaluation and further development. With these considerations in mind, Diponegoro University, through LPPM, has established research and community service standards which will serve as guidelines and benchmarks for university leaders, faculty leaders, department heads, study program heads, and lecturers and students who are all responsible for improving quality and quantity of research and community service.

3. STANDARD CONTENT STATEMENT

- a. Research assessment must meet the principles of educational, objective, accountable and transparent assessment. In addition, research assessment must pay attention to the suitability of content standards, results standards, researchers, and research process standards.
- b. Research assessment is carried out using methods and instruments that are relevant, accountable, and represent measures of the achievement of process performance and outcome performance.
- c. Research assessment is determined by the Institute for Research and Community Service (LPPM) in accordance with the Regulation of the Minister of Research, Technology and Higher Education of the Republic of Indonesia Number 44 of 2015.
- d. Research assessment must comply with the provisions in the research guidebook published by LPPM Undip.
- e. Research assessment consists of various stages, namely: Research proposal evaluation desk, proposal discussion seminar, determination of proposal winner, research contract, monitoring and evaluation, and research results seminar.
- f. Research assessments carried out by students in the context of preparing final assignment reports, theses, theses or dissertations are regulated based on the provisions of (Undip) regulations.

4. STANDARD ACHIEVEMENT STRATEGY

To achieve research assessment standards:

- a. LPPM Undip publishes a research guidebook as a guide for Undip researchers and students.
- b. LPPM Undip socializes research guidebooks to Undip researchers and students.
- c. LPPM Undip holds training/workshops on research activities for Undip researchers and students.
- d. LPPM Undip recruits and involves a team of experts/reviewers in assessing research activities, starting from proposal selection, proposal seminars, and research results seminars.
- e. Create research assessment procedures to assess research by following objective, accountable and transparent assessment principles. To fulfill these elements, research assessment is carried out in stages:
 1. Proposal Evaluation Desk
 2. Proposal Discussion Seminar
 3. Determination of Winners
 4. Research Contract
 5. Monitoring and Evaluation
 6. Research Results Seminar
- f. Procedure *evaluation desk* the proposal is as follows:
 1. LPPM accepts the research proposal from the proposer.
 2. LPPM checks the administrative requirements of submitted proposals.
 3. Proposals that have been deemed to have passed administrative selection are grouped based on the research field and proposed research scheme. Division can be carried out based on the type of field of science.
 4. Next, the officer deletes the personal identity of the proposer in the research proposal, such as name, address, telephone number, position, and other attributes that can function as the identity of the proposer.
 5. The Chair of the LPPM forms a research proposal assessment team consisting of lecturers who meet the requirements as assessors according to the needs of the group of fields of science to be evaluated.
 6. LPPM proposes to the rector to issue an assignment letter to the appointed assessment team to carry out an assessment (review) of the proposed research according to the field of science.

7. The review team holds a meeting to align perceptions according to the assessment points of the proposal evaluation desk in the research proposal selection guidelines.
 8. The research proposal is submitted to the assessment team by the LPPM chairman with an official report document for further assessment. Assessment of research proposals is carried out based on research proposal selection guidelines.
 9. The appraiser carries out the assessment independently and objectively.
 10. The appraiser submits the assessed proposal documents along with the completed assessment instruments to the LPPM in private.
- g. The proposal discussion seminar procedure is as follows:
1. LPPM invites research proposal proposers who pass the proposal evaluation desk to present their research proposals.
 2. The appraiser carries out his assessment in an educational, objective, accountable and transparent manner.
 3. The appraiser submits the assessed proposal documents along with the completed assessment instruments to the LPPM in private. The submission is accompanied by an official report document.
- h. The procedure for determining the winner is as follows:
1. LPPM ranks research proposals based on the value of each research proposal, which is the average of two assessors. All qualitative notes and comments made by the appraiser regarding the appraised proposal must also be documented together with the score.
 2. LPPM holds a coordination meeting in order to provide input to the Chair of the LPPM in determining research proposals that are deemed worthy of implementation and funding.
 3. The Chair of the LPPM determines through a decision letter that research proposals are deemed worthy of being further proposed to funding institutions or directly financed by university funds, after considering all aspects/criteria set out in the research proposal selection guidelines.
 4. Based on this decision letter, LPPM will openly announce the results of the selection of research proposals via the LPPM website.
 5. In addition to the open announcement, LPPM notifies in writing both the proposer whose proposal has been accepted for funding and the proposer whose proposal has not/cannot be funded.
- i. The research contract procedure is as follows:

1. LPPM invites proposers whose proposals are accepted for funding to sign a research contract letter.
 2. LPPM provides a letter of assignment to carry out research to the proposer whose proposal is funded and at the same time asks the proposer to prepare a research design according to what has been proposed.
- j. Evaluation monitoring procedures
1. The monitoring and evaluation (monev) activity schedule is carried out every year in the middle and end of research activities
 2. Monitoring and evaluation activities involve internal and external reviewers.
 3. Every researcher who receives a research grant is required to prepare themselves to take part in this monitoring and evaluation activity.
 4. Head of the LPPM Program and Evaluation Sub-Division makes a schedule for monitoring and evaluation activities and follow-up with the knowledge of the LPPM chairman.
 5. The research monitoring and evaluation activity schedule is announced at least 2 weeks before the implementation of the monitoring and evaluation.
 6. LPPM invites proposers whose proposals are funded to submit research progress reports in monitoring and evaluation activities.
- k. Seminar procedures for research results are as follows:
1. The annual seminar schedule is held in March every year.
 2. Every researcher who receives a research or service grant is required to attend an annual seminar
 3. The LPPM program and evaluation department forms a seminar committee with the knowledge of the LPPM Chair
 4. Seminars are held with or without collaboration with Dikti and Scientific Periodicals at the University (for example Coastal Development Journal, Marine Science Magazine, Reactor Journal, etc. within Undip)
 5. The seminar committee announces the implementation of the seminar (first circular for *Call of Papers*) at least 3 months (December) before the seminar
 6. Seminars are held involving all research schemes, while the venue can be arranged in parallel according to scientific fields
 7. The seminar committee can invite stakeholder(s) including academics, the general public and practitioners as participants
 8. The best presenter/several best presenters in each seminar receive an award.

9. Presenters whose papers meet the criteria of an accredited National Scientific Periodical who is a seminar organizing partner can have their articles published for publication.
10. The seminar committee invites reviewers to assess the papers presented. Reviewers can be assisted by members of scientific associations
11. The committee has created a seminar directory on the LPPM website which can contain seminar abstracts and can be downloaded for free

5. STANDARD ACHIEVEMENT INDICATORS

To achieve research assessment standards, LPPM Undip sets research assessment indicators. Indicators in the research assessment process are shown in the table below:

Table. 4.5.1. Research Assessment Indicator Table

No	Assessment process	Assessment indicators
1	Acceptance of proposals study	<ul style="list-style-type: none"> • Number of research titles • Number of researchers involved in the research • Number of Faculties and Departments involved in research
2	Evaluate proposals study	<ul style="list-style-type: none"> • Number of research titles that passed the evaluation desk and proposal discussion seminar • Number of researchers involved in the research • Number of Faculties and Departments involved in research
3	Monitoring and evaluating research progress	<ul style="list-style-type: none"> • Percentage of progress on research results in accordance with the objectives and outcomes to be achieved • Achievement of research outputs, including publications in international seminars and reputable national and international journals, IPR, books and research products
4	Final evaluation of the research	The number of research outputs that have been achieved, including publications in international seminars and reputable national and international journals, IPR, books and research products

6. INTERACTION BETWEEN STANDARDS

Research assessment standards support process standards, outcome standards, management standards, content standards, financing and funding standards, and research management standards.

7. PARTIES INVOLVED IN COMPLIANCE WITH STANDARDS

- a. Rector as University Leader
- b. Institute for Research and Community Service
- c. Heads of Faculties, Departments and Study Programs
- d. Researcher
- e. Lecturer
- f. Student
- g. Expert/Reviewer team
- h. Research Partners

8. RELATED DOCUMENT

This standard must be accompanied by supporting regulations.

9. REFERENCE

- a. Minister of Research, Technology and Higher Education Regulation Number 44 of 2015 concerning National Higher Education Standards
- b. Minister of Education and Culture Regulation Number 50 of 2014 concerning Quality Assurance of Higher Education

1. DEFINITION OF TERMS

Researcher standards are the minimum criteria for a researcher's ability to carry out research.

2. STANDARD RATIONAL

To determine the increase in the quality and quantity of research, it is necessary to have certain standards as a benchmark or basis for evaluation and further development. With these considerations in mind, Diponegoro University, through LPPM, sets research standards.

3. STANDARD CONTENT STATEMENT

- a. Researchers must have a level of mastery of research methodology that is appropriate to the scientific field, research object, as well as the level of complexity and depth of research.
- b. Researcher abilities are determined based on:
 - academic qualifications
 - research result.
- c. The researcher's ability determines the authority to carry out.
- d. Guidelines regarding the authority to carry out research are determined by the Director General for Strengthening Research and Development.

4. STANDARD ACHIEVEMENT STRATEGY

In order to successfully achieve research standards, a strategy is needed that must be implemented, namely

1. Providing researchers with research guidelines that apply at Diponegoro University.

2. Equipping researchers with knowledge of preparing research proposals and reports through training/workshops.
3. Providing researchers with the opportunity to choose research activities according to the scientific field, object, level of complexity, and level of depth of research.
4. Develop a research database system that includes the performance achievements of researchers at the tertiary level.
5. Encourage the formation of research groups that are structured and have national and international competitiveness.
6. Carrying out research contracts between universities and researchers that
7. include students.
8. Providing time for researchers to allocate research time.
9. Establish collaboration with external institutions related to research.
10. Providing remuneration and welfare guarantees for researchers.
11. Providing opportunities for researchers to take part in sabbatical leave, post doc within and outside UNDIP.

5. STANDARD ACHIEVEMENT INDICATORS

Indicators of researcher standard achievement are based

on:

- a. Data on active research lecturers at Diponegoro University.
- b. Data on foreign research lecturers at Diponegoro University.
- c. Data on lecturers who take part in the programs *sabbatical leave*, post doc or research collaboration abroad.

6. INTERACTION BETWEEN STANDARDS

Researcher standards support outcome standards, process standards, assessment standards, and management standards.

7. PARTIES INVOLVED IN COMPLIANCE WITH STANDARDS

- a. The leadership of Diponegoro University provides facilities and infrastructure to support research activities at the university level.

- b. Faculty leaders organize the availability of facilities and infrastructure to support research activities at the faculty level.
- c. The Chairman of LPPM carries out strategic tasks of research development and community service
- d. The Director of Innovation and Development of Research Results manages research outputs in the form of intellectual property rights (IPR) both in the form of copyright and industrial property rights (patents, industrial designs, integrated circuit layout designs, brands, trade secrets and plant variety protection) as well as verifying prototypes or The products produced are based on the level of technology readiness (TKT).
- e. Director of Research and Industrial Collaboration.
- f. Researcher
- g. Lecturer
- h. Student
- i. Research Partners

8. RELATED DOCUMENTS

This standard must be accompanied by supporting regulations.

9. REFERENCES

- a. Minister of Research, Technology and Higher Education Regulation Number 44 of 2015 concerning National Higher Education Standards.
- b. Minister of Education and Culture Regulation Number 50 of 2014 concerning Quality Assurance of Higher Education.

1. DEFINITION OF TERMS

Standards for research facilities and infrastructure are the minimum criteria for facilities and infrastructure needed to support the needs for research content and processes in order to fulfill research results.

2. STANDARD RATIONAL

To determine the increase in the quality and quantity of research, it is necessary to have certain standards as a benchmark or basis for evaluation and further development. With these considerations in mind, Diponegoro University through LPPM sets standards for facilities and infrastructure.

3. STANDARD CONTENT STATEMENT

- a. Research facilities and infrastructure are university facilities used for:
 1. facilitate research at least related to the field of study program science;
 2. learning process; And
 3. community service activities. Research management is carried out by work units in the form of institutions tasked with managing research.
- b. Research facilities and infrastructure must meet standards of quality, work safety, health, comfort and security for researchers, the community and the environment.

4. STANDARD ACHIEVEMENT STRATEGY

In order to successfully achieve standards of facilities and infrastructure, strategies must be implemented, namely:

1. Providing support staff for research activities (administrative staff and technical staff)
2. Providing adequate and quality facilities
3. local, national and international cooperation.
4. Organizing various training, workshops and research seminars both locally, nationally and internationally.

5. STANDARD ACHIEVEMENT INDICATORS

Indicators for achieving standard facilities and infrastructure are based on: a. Data on research activity support staff (administrative staff and technical staff).

b. Data on supporting facility units owned by Diponegoro University.

c. Documents for planning and developing research supporting facilities.

d. Collaboration network data.

6. INTERACTION BETWEEN STANDARDS

Facilities and infrastructure standards support output standards, process standards, assessment standards and management standards.

7. PARTIES INVOLVED IN COMPLIANCE WITH STANDARDS

- a. The leadership of Diponegoro University provides facilities and infrastructure to support research activities at the university level.
- b. Faculty leaders organize the availability of facilities and infrastructure to support research activities at the faculty level.
- c. The Chairman of LPPM carries out strategic tasks of research development and community service.
- d. The Director of Innovation and Research Results Development manages research outputs in the form of intellectual property rights (IPR) in the form of copyrights and industrial property rights (patents, industrial designs, integrated circuit layout designs, brands, trade secrets and plant variety protection) as well as verifying prototypes or products produced based on the level of technological readiness (TKT).
- e. Director of Research and Industrial Collaboration.
- f. Researcher.
- g. Lecturer.
- h. Student.

- i. Research Partners.

8. RELATED DOCUMENT

This standard must be accompanied by supporting regulations.

9. REFERENCE

- a. Minister of Research, Technology and Higher Education Regulation Number 44 of 2015 concerning National Higher Education Standards.
- b. Minister of Education and Culture Regulation Number 50 of 2014 concerning Quality Assurance of Higher Education.

1. DEFINITION OF TERMS

Research management standards are minimum criteria regarding planning, implementation, control, monitoring and evaluation, as well as reporting of research activities.

2. STANDARD RATIONALE

To determine the increase in the quality and quantity of research, it is necessary to have certain standards as a benchmark or basis for evaluation and further development. With these considerations in mind, Diponegoro University, through LPPM, sets research standards which include research management standards. Research management standards include planning, implementation, control, monitoring and evaluation as well as reporting of research activities.

3. STANDARD CONTENT STATEMENT

- a. Research management is carried out by work units in the form of institutions tasked with managing research.
- b. Institutions are research institutions, research and community service institutions, or other similar forms in accordance with the needs and provisions of higher education.
- c. Research and Community Service Institutions are required to:
 1. prepare and develop a research program plan in accordance with the university's research strategic plan;
 2. prepare and develop regulations, guidelines and internal research quality assurance systems;
 3. facilitate the implementation of research;
 4. carry out monitoring and evaluation of research implementation;
 5. disseminate research results;

6. Facilitate increasing the ability of researchers to carry out research, write scientific articles;
 7. giving awards to researchers who excel;
 8. report on research activities managed by him.
- d. The Directorate of Innovation and Research Results Development is obliged to: carry out planning for the development of university strategic programs in the field of innovation and development of research results, through;
1. implementation of acquisition of intellectual property (KI);
 2. implementation of innovation development and research results;
 3. implementation of strategic tasks of innovation and development of research results.
- e. Required faculties:
Coordinating through the designated Research Unit to plan, implement and evaluate research activities at the Faculty, Department and Study Program level.
- f. Diponegoro University is required to:
1. have a research strategic plan which is part of the university's strategic plan;
 2. develop research assessment criteria and procedures that at least involve aspects of increasing the number of scientific publications, new discoveries in the field of science and technology, and the quantity and quality of teaching materials;
 3. maintain and improve the quality of management of research institutions or functions in carrying out research programs on an ongoing basis;
 4. carry out monitoring and evaluation of research institutions or functions in implementing research programs;
 5. have guidelines regarding researcher criteria by referring to standard results, content standards and research process standards;
 6. utilize research facilities and infrastructure at other institutions through research collaboration programs;
 7. carry out needs analysis regarding the number, type and specifications of research facilities and infrastructure;
 8. submit reports on the performance of research institutions or functions in carrying out research programs at least through higher education databases.

4. STANDARD ACHIEVEMENT STRATEGY

In order to successfully achieve research management standards, strategies are needed that must be implemented, namely

- a. Develop a research strategic plan to improve the quality and quantity of research.

- b. Determine research performance indicators that are in accordance with the IKUP (Main Research Performance Indicators) set by DRPM.
- c. Develop guidelines, referring to SPMPT standard norms.
- d. Encourage the formation of research groups that are nationally and internationally competitive.
- e. Develop a research database system that includes research performance achievements at the tertiary level.
- f. Implementing research contracts between universities and researchers.
- g. Reporting the results of activities and use of research funds through SIMLITABMAS and SIP3MU.

5. STANDARD ACHIEVEMENT INDICATORS

Research Management Standards are minimum criteria regarding planning, implementation, control, monitoring and evaluation, and reporting of research activities.

Therefore, standard achievement indicators are based on:

a. Research program planning with achievements:

1. Diponegoro University and LPPM prepare a Research Master Plan (RIP) document for Diponegoro University which is in accordance with the National Research Master Plan (RIRN) which is currently running on a multi- year basis (five years) by containing a road map, research umbrella, availability of human resources, as well as facilities and infrastructure study. Diponegoro University's RIP can consist of one/several superior fields that lead to the formation of research excellence at Diponegoro University.
2. Diponegoro University and LPPM formulate several other types of relevant research and support the research strategic plan as a guideline for conducting research.
3. The postgraduate program at Diponegoro University is integrated with postgraduate education research.

b. Implementation of research activities with achievements:

1. Carrying out research activities using a National Competitive scheme

2. Carry out research activities using a Decentralization scheme
 3. Carrying out research activities with special schemes for universities, faculties and departments.
- c. Control of research activities with achievements:
1. There is a mechanism for submitting research proposals
 2. There is a research proposal selection mechanism
 3. There is a research contract mechanism
 4. There is funding and research management costs
- d. Monitoring and evaluation of research activities
- LPPM is obliged to carry out internal supervision over the implementation of research. The results of internal monitoring and evaluation (supervision) are reported through Simlitabmas. Where necessary LPPM assists in monitoring and evaluation at the Faculty level.
1. Reporting on research activities is carried out by researchers in the form of progress reports and final reports as well as promised achievements and submitted through SIMLITABMAS and SIP3MU. Then it is compiled by LPPM to be reported to DRPM.

6. INTERACTION BETWEEN STANDARDS

Research management is an important part of the research regulatory mechanism which involves managers of planning, implementation, control, monitoring and evaluation, as well as reporting of research activities. The entire mechanism interacts with all existing standards.

7. PARTIES INVOLVED IN COMPLIANCE WITH STANDARDS

- a. The leadership of Diponegoro University provides facilities and infrastructure to support research activities at the university level.
- b. Faculty leaders organize the availability of facilities and infrastructure to support research activities at the faculty level.
- c. The Chairman of LPPM carries out strategic tasks of research development and community service
- d. The Director of Innovation and Research Results Development manages research outputs in the form of intellectual property rights (IPR) in the form of

copyrights and industrial property rights (patents, industrial designs, integrated circuit layout designs, brands, trade secrets and plant variety protection) as well as verifying prototypes or products produced based on the level of technological readiness (TKT).

08. RESEARCH FINANCING AND FUNDING STANDARDS

1. DEFINITION OF TERMS

Research funding and financing standards are the minimum criteria for sources and mechanisms for research funding and financing.

2. STANDARD RATIONALE

Research Funding and Financing Standards are needed to serve as guidelines in finding sources and mechanisms for research funding and funding at Diponegoro University.

3. STANDARD CONTENT STATEMENT

The Chair of the Diponegoro University LPPM provides research funds that have been prepared by the university, LPPM or other institutions to finance the research of all Diponegoro University academics every year.

4. STANDARD ACHIEVEMENT STRATEGY

- a. Diponegoro University is required to provide regular annual internal research funds
- b. Diponegoro University facilitates research collaborations originating from the government, collaboration with other institutions at home and abroad, or funding from the public.

5. STANDARD ACHIEVEMENT INDICATORS

Availability:

- a. Research data funded by Ditlitabmas
- b. Research data funded outside Ditlitabmas

6. INTERACTION BETWEEN STANDARDS

Costing and Funding Standards This research supports four other standards, namely: Results Standards, Process Standards, Assessment Standards and Management Standards

7. PARTIES INVOLVED IN COMPLIANCE WITH STANDARDS

The party responsible for fulfilling this standard:

- a. Rector of Diponegoro University
- b. Deputy Rector II of Diponegoro University
- c. LPPM Diponegoro University
- d. Dean at Diponegoro University
- e. Head of Department/Study Program at Diponegoro University

Drafting team

- Chairman : Dr. Jamari, ST, MT
- Member : 1. Prof. Dr.rer.nat. Heru Susanto, ST, MM, MT
2. Dr. Agus Subagio, S.Si., M.Sc.
3. Mochamad Arief Budihardjo, ST, M.Eng, Env.Eng, Ph.D
4. Dr. Eng. Ali Khumaeni, S.Si., ME
5. Joga Dharma Setiawan, B.Sc., M.Sc., Ph.D.