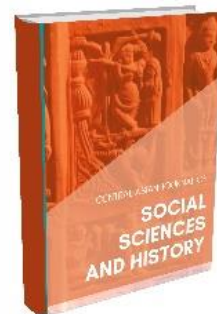




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### Improvement of Open Journal System (OJS) to Optimize Journal Accreditation Score

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#### Abstract:

Scientific journal is an indicator of the progress of an educational institution. Publication in Scientific Journals is a tool to build the reputation of lecturers, researchers, teachers, and universities. However, the management of journals in Indonesia still does not consider the importance of indexing as a way of global dissemination. This is evident from the data showing that of the total journals registered in Indonesia, only 5.17% have been accredited. Department of Geomatics Engineering, Faculty of Mineral Technology, UPN "Veteran" Yogyakarta has a Scientific Journal called Jurnal Ilmiah Geomatika (IMAGI). IMAGI is a forum for writing, scientific work, and research related to development and application of geodesy and geomatics, survey mapping and GNSS, land, Geographic Information Systems (GIS), remote sensing, photogrammetry, hydrography, geography, and geology and disasters studies. Journal accreditation can expand IMAGI connectivity to improve the quality of publications. The main objectives of this research are to optimize and improve the management of IMAGI to get maximum accreditation score. There are several steps conducted in this research including identification of the requirement for journal accreditation, preliminary assessment, evaluation of journal management, workshop and benchmarking, implementation of evaluation results, and submit the journal accreditation. The methodology that used for this research are discussion with journal expert and benchmarking with another scientific journal.

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## 1. Introduction

Scientific journal is an indicator of the progress of an educational institution. Publication in Scientific Journals is a tool to build the reputation of lecturers, researchers, teachers, and universities. Graduation of master's and doctoral students also requires the same thing. A citation journal article means that it contains scientifically viable content as a source of scientific development truth. Authors of journals whose scientific work is widely imitated will also get a high h-index as evidence of the academic world's recognition of its existence and quality. However, the management of journals in Indonesia still does not consider the importance of indexing as a way of global dissemination [5]. This is evident from the data showing that of the total journals registered in Indonesia, only 5.17% have been accredited [3].

Department of Geomatics Engineering, Faculty of Mineral Technology, UPN "Veteran" Yogyakarta has a Scientific Journal called *Jurnal Ilmiah Geomatika* (IMAGI). This journal began to be published in print in 2021 initiated by the Chief of the Department at that time. IMAGI contains the results of studies and research in the fields of geodesy and geomatics. This journal is open to scientists, researchers, students and other scholars who want to publish the results of their studies or research. The purpose of this journal is to become a vehicle for scientists and academics to share, exchange and discuss various issues and developments in the science of Geodesy and Geomatics. Topics that can be presented in this journal include: Development and application of geodesy and geomatics, survey mapping and GNSS, land, Geographic Information Systems (GIS), Remote Sensing, Photogrammetry, Hydrography, Geography, Geology and Disasters.

Journal accreditation is a form of official recognition of the quality assurance of scientific journals through fairness assessment activities of manuscript screening, feasibility of management, and timeliness of publication of the journal. Journal accreditation can expand IMAGI connectivity to improve the quality of publications. Journal management in order to be accredited can be achieved in various ways, such as participating in various activities regarding OJS training, Digital Object Identifier (DOI) training, journal indexation, management in publishing, activeness of journal managers, journal accreditation assistance, and following grants in journal management [2]. The main objectives of this research are to optimize and improve the management of IMAGI to get maximum accreditation score. The results of this activity can be used as a basis in improving the management of the journal before applying for national accreditation

## 2. Literature Review

### 2.1. Journal Management

There are five main problems faced by journal managers in Indonesia that cannot be recorded in reputable indexers, among others [2]:

- a) Visibility and accessibility of scientific journals is not good because they have not implemented the management of scientific journals online;
- b) The process of managing the article has not implemented the standard of scientific articles;
- c) The quality of the publication of scientific journals is still mostly not good;
- d) Quality control of scientific journals through the process of review by review partners and the utilization of the template style has not been consistent; and/or
- e) The quality of the substance of the article has not been maintained and maintained properly.

To improve quality in the journal publishing system, the implementation of the electronic publishing system using a well-managed Open Journal System (OJS) is one of the solutions that can be applied. The main thing of the operational standards in OJS is the determination of journal team such as journal managers, editors, authors, and reviewers who are managed systematically and can be accessed online [1].

## 2.2. Journal Accreditation

Competition in market for journal subscriptions is one of the issues that motivate the academic journals, sponsoring organizations, and journal editors improve their quality. Beside the economic issue from marketing, the journals want to publish articles that have more impact for extending and expanding knowledge. Ranking journals and also accreditation provides an objective means for self-evaluation [4].

In 2011, scientific periodicals can be accredited if they meet the conditions stipulated in the Regulation of the Minister of National Education [6]:

- 1) Contains articles that clearly advance knowledge, science, technology, and/or art based on research and study results that contain original and plagiarism-free findings and/or thoughts;
- 2) Have a reputable editorial board or editor representing the fields of knowledge, science, technology, and/or art;
- 3) Involving independent partners from various universities and/or research and development bodies and different industries from within and/or abroad that screen manuscripts anonymously;
- 4) Written in Indonesian and/or the official language of the United Nations;
- 5) Maintaining the correctness of the writing style and the format of its appearance;
- 6) Published in print and electronically through information and communication technology networks; and
- 7) Keep the schedule in time.

In 2018, the accreditation of scientific journals is re-regulated in the Regulation of the Minister of Research, Technology, and Higher Education of the Republic of Indonesia Number 9 of 2018 on Accreditation of Scientific Journals. In the regulation, accreditation of scientific journals consists of eight elements of assessment, which is the criteria for determining the ranking and accreditation status of a scientific journal including [7]:

- a) Journal title;
- b) Publisher organization;
- c) Editorial and journal management;
- d) Article substantial;
- e) Writing style;
- f) Appearance.
- g) Continuity; and

#### h) Distribution.

There are 6 level of accreditation score for national journal accreditation ranking. Below the score range that determine the level of journal.

- a) Accredited Level 1  $85 \leq n \leq 100$
- b) Accredited Level 2  $70 \leq n < 85$
- c) Accredited Level 3  $60 \leq n < 70$
- d) Accredited Level 4  $50 \leq n < 60$
- e) Accredited Level 5  $40 \leq n < 50$
- f) Accredited Level 6  $30 \leq n < 40$

## 2. Research Methodology

There are several steps to conduct this research including identification of the requirement for journal accreditation, preliminary assessment, evaluation of journal management, workshop and benchmarking, implementation of evaluation results, and submit the journal accreditation. The methodology that used for this research are discussion with journal expert and benchmarking with another scientific journal.

Preliminary assessment was conducted by discussion with internal editorial team. Internal editorial team grading and assess the existing condition of the journal. Grading and assessment based on Journal Accreditation Guideline from the Minister of Research, Technology, and Higher Education of the Republic of Indonesia. Evaluation of journal management was conducted by internal editorial team and journal expert. Benchmarking with another highest-ranking scientific journal was obtained to improve the journal management.

Implementation of evaluation also done by discussion. The internal editorial team implement the evaluation by online and based on the suggestion from journal expert. After the implementation, the journal expert doing an assessment together with the internal editors and discuss about the grade of the journal. Furthermore, when the grade is approved by the journal expert and internal editors, the internal editors submit journal accreditation form to the online system.

## 3. Finding and Discussion

### 3.1. Improvement Progress

Several improvements were made to improve the performance of the Geomatics Scientific Journal (IMAGI). The first and foremost is to improve the appearance of the journal through the second version of the Open Journal System (OJS). This activity consists of several activities, such as designing templates/layouts for website display, compiling OJS contents, and managing the hosting process to the institution's main server.

The layout of the website is designed in such a way that users can more easily understand and execute the existing menus (Figure 1). The header displays the Journal's logo on the right and the institution's logo on the left. The main color carried in the Imagi Journal is yellow, in accordance with the characteristic color of the Study Program that houses it, Geomatics Engineering. The menu is given a default base color according to OJS itself. While the basic color of website content uses white background and black fonts. The aim is that users can more clearly read the paragraph/content from

the website.



**Fig. 1. IMAGI OJS layout.**

The contents of OJS are the parts that need to be compiled to carry out the functions of the menus in the system. Previously, the menus in OJS were still empty menus. Currently, these contents have been filled out completely so that the description display for each menu is feasible to run (Figure 2.)



**Fig. 2. OJS Menu**

The content can be divided into two, namely content for writers and content for journal managers. Examples of content for authors are article templates, statements of authenticity, and copyright statements, and publication ethics. Content for authors can be downloaded freely. Authors can write

and upload articles by first registering and logging in to an account at OJS. Examples of journal management content are editorial team, peer reviewer team, publication schedule, and so on (Figure 3).

Editorial Team	Peer Reviewers
<b>Editor in Chief</b> Mrs. Oktavia Dewi Alfiani, PROGRAM STUDI TEKNIK GEOMATIKA FAKULTAS TEKNOLOGI MINERAL UNIVERSITAS PEMBANGUNAN NASIONAL "VETERAN" YOGYAKARTA, Indonesia	1. Dr. Filsa Bioresita, S.T., M.T. 2. Dr-Ing. Noorlaila Hayati, S.T., M.T. 3. Danar Guruh Pratomo, S.T., M.T., Ph.D 4. Dika Ayu Safitri, S.T., M.T., Ph.D 5. Dr. Alfita Puspa Handayani, S.T, M.T. 6. Dr. Zulfakriza, S.Si., M.T. 7. Miga Magenika Julian, S.T., M.T (Ph. Cand) 8. Nurrohmat Widjajanti, M.T., Ph.D. 9. Dr. Bilal Ma'ruf, S.T., M.T. 10. Dr. Ir. Janyth Trilusanthy Hidayat, M.Si. 11. Prof. Dr. Ir. Sari Bahagiarti, M.Sc. 12. Dr. Yohana Noradika Maharani. 13. Aldin Ardian, M.T, Ph.D. 14. Dr. Herry Riswandy, S.T., M., T.
<b>Section editor</b> Dessy Aprivanti, Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia	
<b>Copy editor</b> Dwi Wahyuningrum, Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia Lysa Dora Ayu, Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia	
<b>Layout editor</b> Naufal Setiawan, Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia Maulana Yudinugroho, Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia Monica Maharani, Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia	
<b>Proof reader</b> Dwi Wahyuningrum, Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia Lysa Dora Ayu, Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia	
<b>Reviewer</b> Mrs. Oktavia Dewi Alfiani, PROGRAM STUDI TEKNIK GEOMATIKA FAKULTAS TEKNOLOGI MINERAL UNIVERSITAS PEMBANGUNAN NASIONAL "VETERAN" YOGYAKARTA, Indonesia Dessy Aprivanti, Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia Naufal Setiawan, Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia Maulana Yudinugroho, Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia Monica Maharani, Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia	

**Fig. 3. Editorial team (left) and peer reviewer team (right) of IMAGI.**

The second improvement is related to the management of the journal itself. Journal management using OJS requires special attention because the procedures in the OJS system have a special systematic. Journal managers and related parties have hold training to learn about the process. The training is organized by inviting speakers who are reliable in journal management (Figure 4). Practices in the training include creating super-admin, admin, and visitor accounts, simulating being an author, journal submission, editing, review, publication scheduling, and publication process.



**Fig. 4. Journal management training.**

IMAGI journal publication is scheduled twice a year, in April and September. Each publication session published 1 volume consisting of 5 scientific articles. All submission processes, submission of manuscripts to editors and reviewers as well as publications are carried out through this website by this open journal system.

### 3.1. Evaluation

The journal expert recommends and help the editorial team to improve the OJS appearance. Improving OJS appearance not only can help the accreditation assessor to assess the journal but also attracts more

authors to publish their manuscripts on IMAGI. From the Figure 5 can be seen OJS appearance.



**Fig. 5. OJS Appearance and Management**

#### 4. Conclusion and Further Research

From the implementation of preliminary assessment from internal editorial team and evaluation from external journal expert, IMAGI is ready for accreditation. Optimization of OJS content such as article management system, completing editorial team information, and modifications of OJS layout can increase not only the score and level of national journal accreditation but also attracts more authors to publish their manuscripts on IMAGI.

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