

The Accreditation Journey in Engineering Education: Insights From a Dean's Perspective

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Abstract

Accreditation in engineering education serves as a rigorous quality assurance process, verifying that academic programs are systematically designed to equip graduates with clearly defined professional competencies. These programs must align with recognized standards and be evaluated by independent accrediting bodies. At its core, accreditation establishes a consistent and transparent framework, ensuring that institutions, regardless of location or context, deliver education of comparable quality. While accreditation offers substantial value, it also poses significant challenges. These include securing commitment from diverse stakeholders, ensuring active participation, meeting human resource needs, and managing increased academic and administrative workload. Whether pursued voluntarily or mandated, accreditation often requires considerable institutional effort to foster engagement and shared ownership. Despite these challenges, the benefits of accreditation are far-reaching. It provides international recognition, validates graduate competence, and enhances the professional standing of graduates in both industry and academia. Moreover, it promotes transparency, fairness, and accountability in educational practices, contributing to improved institutional credibility and student outcomes. This paper draws on the insights and experiences of a faculty dean who has led multiple successful accreditation efforts over a 12-year period. It offers a practical perspective on the end-to-end process from initial planning and stakeholder alignment to site visits and evidence collection. The discussion further explores how accreditation results can be used as a strategic tool to foster continuous improvement, curricular innovation, and long-term educational impact within engineering programs.

Keywords: higher education, accreditation, challenges in accreditation, engineering education

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Introduction

With the convergence of global expectations regarding the engineering profession, engineering education and the competencies expected of graduates (depending on their specific fields) have also begun to align, creating common and universal expectations. As these shared expectations emerged, the importance of defining the minimum competencies required of an engineer increased. Consequently, accreditation bodies were established to develop international standards and to accredit programs in accordance with these standards (ENAAE, 2025; Engineering Council UK, 2020).

The accreditation of an engineering program generally signifies that, regardless of geographical location, the program provides an education that meets the minimum global competency requirements. Therefore, graduates from non-accredited programs often face reduced prospects for degree equivalency, admission to postgraduate studies, or employment opportunities (Accredited Schools Online, 2025; Bordia, 2001; Marvin, 1952).

Although accreditation seeks to ensure that graduates attain the necessary professional competencies, it also brings with it a number of obligations and corresponding challenges. Some of these can be listed as follows:

- Accreditation covering only a portion of the educational system for instance, when a specific university program is accredited, but the pre-university educational stages do not align with accreditation standards, thereby creating difficulties in fully achieving the expected competencies.
- The existence of regional and national variations in expectations, making it difficult to harmonize educational content due to differing perspectives.
- Difficulties in adapting the standards required for accreditation to the existing educational system.
- Anxiety arising from attempts to rigidly implement every stage of the accreditation process as an inflexible and absolute procedure.
- The fear of losing accreditation status once obtained.
- The perception among some faculty members that accreditation poses a barrier to academic freedom (a view often resulting from misunderstandings).
- The infrastructural and financial requirements necessary to sustain accreditation, which can, in some cases, be demanding and difficult to maintain.

All these challenges and obligations must be considered together with the reservations and hesitations that may arise even before initiating the accreditation process. In addition, there are numerous difficulties encountered both during the application phase and in the post-accreditation period.

This paper discusses certain issues that, based on experience, have proven particularly demanding during and after the accreditation process, as well as the specific challenges faced by administrators of accredited programs.

It should be noted that the issues discussed herein are based on experiential insights and may not apply to every accreditation process or encompass all possible situations. Therefore, the observations presented in this study should be understood as specific to particular accreditation contexts and regional circumstances.

Some Challenges in the Accreditation Process

The application and successful accreditation of a university program depend on the fulfillment of certain conditions. These conditions vary across different stages of the process before and during the accreditation application, throughout the evaluation visit by the accrediting body, and in the post-accreditation period. Each stage involves unique requirements and presents its own set of specific challenges, as several of them illustrated in Figure 1.

Figure 1

Accreditation Process Life-Cycle



Pre-accreditation Stage

Securing Senior Management Commitment and Financial Support

Typically, the first major challenge before initiating an accreditation process (especially if the institution is applying for the first time or if the importance of accreditation is not yet well understood) is persuading the senior administration (the rectorate or board of trustees) to approve the application and allocate the necessary financial support. This stage can be quite demanding, as financial resources alone are not sufficient; certain structural adjustments that affect upper management operations may also be required.

Therefore, the process often begins with a series of “persuasion rounds” aimed at obtaining approval for both the reallocation of resources and potential structural changes that could alter long-established administrative or academic practices. These efforts require extensive preparation, including the development of coherent justifications, the creation of clear and

informative documentation, and the delivery of detailed presentations to communicate the process effectively. While this stage can be exhausting, it may also proceed smoothly if senior management and university units already possess a solid understanding of the value of accreditation.

Gaining the Support of Academic Units and Personnel

Even before the formal accreditation application is submitted, one of the most critical challenges is informing and convincing academic units (composed of faculty members and administrative personnel with diverse profiles) about the process and its implications. This phase may represent the most difficult part of the entire accreditation journey, as it requires addressing the concerns of experienced faculty members who have long operated within established routines, pedagogical methods, and professional expertise. Some may even perceive accreditation as a potential restriction on academic freedom.

In such cases, the involvement of faculty members with prior accreditation experience can be particularly valuable. Their support can help explain the rationale, benefits, and practicalities of accreditation to their colleagues, fostering a more positive institutional attitude toward the process.

Convincing faculty members, however, is not sufficient on its own. It is equally important to identify strategies for managing the additional workload that accreditation brings. To alleviate this concern, tools or mechanisms that facilitate the process and reduce workload should be provided. Designing and planning such tools can itself be a significant challenge, as it requires the allocation of both time and resources.

Preparing and Allocating All Necessary Resources

The accreditation process demands both time and substantial resources. Effective planning and timely initiation of preparatory activities are therefore crucial. The term *resources* here refers not only to financial assets but also to human capital. Strong organizational planning is essential.

Since each academic unit (department or program) may have distinct accreditation requirements, it is advisable to appoint at least one representative from each unit and to provide motivating incentives, such as a course-load reduction, to compensate for the additional responsibilities. Alongside human resources, the acquisition of supplementary tools such as computers, scanners, and educational materials is also important at this stage.

Defining All Required Steps and Procedures

This stage marks the point at which all units are fully prepared for accreditation and capable of carrying out the necessary steps efficiently. However, it also represents the beginning of the heaviest workload, as previously planned tasks must now be executed, revealing potential obstacles or complications.

Typically, this stage begins with curriculum revision, since accreditation requires the implementation of a standardized and widely accepted educational framework. Existing curricula may not fully comply and thus may need modification. Curriculum changes are not trivial, they can affect the entire educational structure. For example, new courses may need to

be introduced (which may require hiring additional faculty), and modifications to the program could necessitate student transition (curriculum adaptation), resulting in heterogeneous classroom compositions where students from different curricula must be taught together. These issues must be carefully managed.

In some cases, curriculum changes may not be required, but revisions to course content, assessment, and evaluation methods might be necessary. Reviewing and revising all course materials and assessment systems is a lengthy and labor-intensive process. One of the most significant challenges during this phase is verifying the adequacy of changes and identifying any inadvertent omissions or errors that may have occurred.

Given the volume of work described above, academic staff alone are often insufficient. Additional support personnel may need to be hired, which could necessitate restarting the initial persuasion process with senior management to obtain approval and funding.

After revising the assessment and evaluation framework, it is essential to plan how these processes will be integrated into continuous improvement mechanisms and to ensure that all relevant procedures are properly designed. It must be acknowledged that the first cycle of accreditation and quality improvement will likely include shortcomings or even mistakes. These should be viewed as part of an organizational learning and maturation process that improves over time through experience.

Moreover, to minimize the anxiety and additional workload associated with this learning phase, proactive planning is necessary. Without such preparation, early challenges may generate frustration, discouragement, and burnout among staff, potentially jeopardizing the sustainability of the accreditation effort.

In addition, systematic planning must be conducted to ensure the continuous monitoring of student and alumni progress and the achievement of program learning outcomes. Conducting this process manually is nearly impossible; thus, technological tools are required. Implementing such systems often requires renewed financial support, which may again entail persuading senior management.

Preparing All Documentation and Evidence

Preparing all documents and evidence required for the accreditation application and subsequent evaluation visit presents an additional workload. In the case of a first-time application, documentation practices may not yet be institutionalized, meaning that numerous materials must be produced in a short time, verified for accuracy (ensuring they are authentic and not fabricated), and organized according to a uniform standard. This can lead to various difficulties.

Another challenge arises when more than one different programs (each with unique accreditation requirements) prepare their application files. Variations in interpretation or approach may lead to inconsistencies, necessitating further negotiation and coordination. This, in turn, requires additional time and resources.

The documentation and evidence preparation stage is generally viewed as an indicator that the program is already meeting accreditation requirements and is ready for evaluation.

However, if internal processes are not yet fully established (as is common in first-time applications), encountering problems and extra workload at this stage is quite likely.

The emergence of recurring issues during the process can at times demoralize academic and administrative staff. It is crucial to communicate that such difficulties are natural and that, through an iterative and experiential approach, processes will mature and challenges will diminish. As with all quality assurance systems, once accreditation practices become part of the institutional culture, future processes will be far smoother.

Finally, in subsequent accreditation cycles, the documentation and evidence-gathering process will become significantly easier, supported by digital tools and well-established procedures, thus requiring fewer resources and less effort overall.

Accreditation Visit Stage

Once the preliminary stages of accreditation have been completed, the overall workload is significantly reduced before the visit of the accreditation team. Nevertheless, various challenges and unforeseen issues may still arise during the visit itself.

Preparations for the Visit

It is crucial to ensure that all academic and administrative units are fully familiar with and have internalized the established processes prior to the visit. Although differing opinions expressed during the visit may initially cause concern, it is essential to allow academic staff the freedom to express their views openly. Any criticisms raised during this process should be viewed constructively and incorporated into subsequent improvement plans.

Furthermore, all infrastructural and logistical requirements necessary for the visiting team must be fully prepared in advance. Ensuring that all required facilities, materials, and technical support are available not only saves time but also reflects the institution's professionalism and attention to detail.

Coordination of the Visit

During the accreditation visit, the evaluation team may request meetings with various stakeholders and have diverse logistical or information needs. Therefore, identifying these requirements in advance -such as the team's preferences regarding facilities, data, or individuals they wish to meet- greatly facilitates smooth coordination. Gathering this information from the team prior to the visit and preparing accordingly is essential.

Arranging meetings with external stakeholders can be particularly challenging. These may include advisory board members, alumni, and representatives from companies that employ graduates. Ensuring their presence during the visit can be difficult, as their schedules may not align with the visit dates. For this reason, preparations must begin well in advance, maintaining consistent communication with both the visiting team and stakeholders to guarantee attendance. This process can be labor-intensive and may require considerable organizational effort.

Additionally, logistical arrangements such as the transportation, accommodation, and other needs of external participants must be addressed. This often requires additional financial

resources, potentially necessitating renewed efforts to secure approval and support from senior management.

Because the presence of all academic and administrative staff, as well as students, is generally required during the visit, organizing these groups and ensuring their readiness is equally important. This is especially demanding for large programs with high numbers of students and faculty members. In such cases, course schedules must be carefully adjusted to avoid conflicts and to ensure the availability of key personnel during the visit.

Preparing Personnel for the Visit

An effective and productive site visit is crucial to the success of the accreditation process. Since the composition of visiting teams may differ each time and because each team may emphasize different aspects of the program collaborative and facilitative attitudes are highly beneficial.

Prior to the visit, faculty and administrative staff from different backgrounds should be thoroughly briefed and motivated to respond cooperatively to the visiting team's inquiries and expectations. Establishing this shared understanding helps ensure a smooth and professional interaction.

It is also advantageous for the members of the visiting team to engage in pre-visit communication with key program personnel. Such interaction helps clarify mutual expectations and allows both sides to prepare more effectively. Therefore, the faculty administration should ensure that appropriate communication channels are established and maintained between the program staff and the visiting team prior to the visit.

Post-accreditation Stage

Following the accreditation visit, it is mandatory that accreditation practices and continuous improvement activities be sustained regardless of whether a program has been granted accreditation. Considering the long-term benefits of accreditation and its positive influence on educational processes, maintaining these efforts ensures that quality assurance becomes a permanent and evolving institutional practice.

Building Institutional Culture and Motivating Practitioners (Academic and Administrative Staff)

Since the responsibility for sustaining these efforts primarily lies with the practitioners namely, academic and administrative personnel, their motivation and internalization of the processes are critical for cultivating an enduring institutional culture. Positive feedback from graduates, employers, and stakeholders, along with measurable indicators used to assess educational objectives, can be powerful tools for reinforcing this motivation. The more positive feedback the institution receives, the stronger the sense that the work being done is valuable and impactful.

One of the significant benefits of developing an institutional quality culture and internalizing accreditation processes is the professional adaptability it fosters among academic staff. Academics who work within a culture of quality can more easily integrate into new institutions if transferred, and personnel who have internalized such a culture are more likely

to be preferred in other professional settings. Ultimately, this shared culture benefits the educational system, students, and practitioners alike and should therefore be emphasized and communicated effectively to all staff.

All feedback (both positive and negative) should be made accessible in a transparent environment and updated periodically. Regularly reminding practitioners of the importance of this culture and supporting their engagement in it are essential for ensuring genuine internalization.

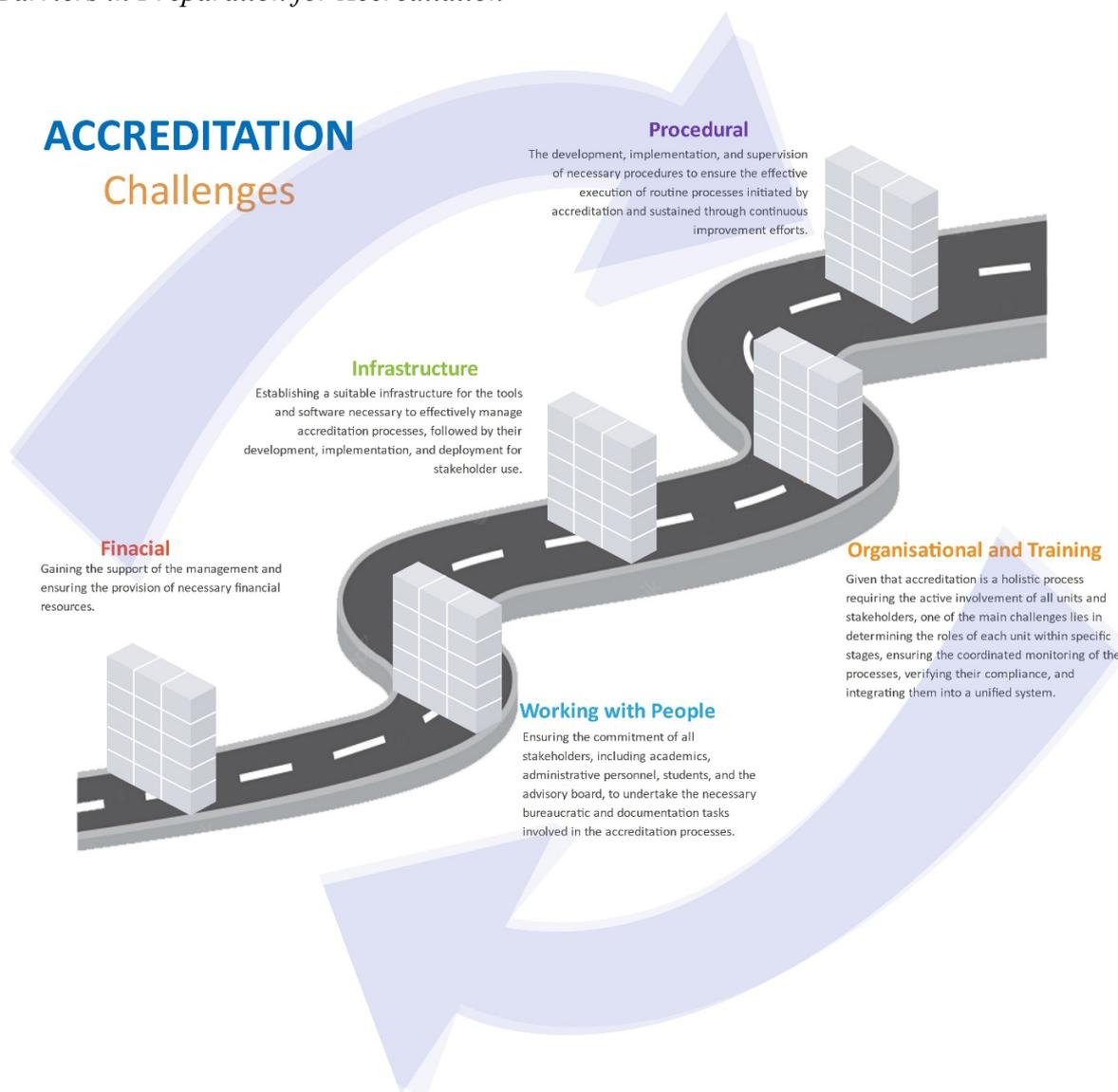
Ensuring Continuous Improvement and Providing Technological Support

Another key motivational factor for practitioners in maintaining a culture of quality and accreditation is the provision of tools and technological support that reduce workload and minimize errors. Computer-based systems designed to monitor and assess student learning outcomes and program competencies can be particularly effective. The less time and effort practitioners need to complete their tasks accurately, the more motivated and engaged they will become.

In addition to software support, it is beneficial to ensure that all processes are systematically designed, clearly documented, and easily accessible. Establishing defined timelines for each process, sharing these calendars with practitioners, and issuing periodic reminders about required tasks can enhance coordination and efficiency. Furthermore, automating routine procedures (where possible) can significantly reduce workload and enhance motivation.

Of course, developing such software and supportive tools entails additional costs and administrative effort for the faculty. Therefore, the cost-benefit balance should be carefully evaluated to determine the extent to which these initiatives can be implemented. Necessary support should then be sought from both senior management and relevant academic units.

Figure 2
Barriers in Preparation for Accreditation



Short Discussion and Conclusion

Accreditation is, in essence, a comprehensive quality assurance process. In the field of engineering education, it has become virtually indispensable. However, as illustrated in Figure 2, it also requires overcoming certain barriers and assuming additional responsibilities.

Accreditation processes—their challenges and necessity—have been the subject of numerous scientific studies, leading to a wide range of insights and experiences (Alhorani et al., 2021; Bordia, 2001; Gouia-Zarrard et al., 2024; Wolff et al., 2025; Smith & Brown, 2023; Uziak et al., 2017; Zhang et al., 2023). The data and procedural knowledge obtained from these studies demonstrate that similar difficulties and issues often arise across different accreditation contexts, although the specific challenges encountered may vary depending on the program and the level of national educational development.

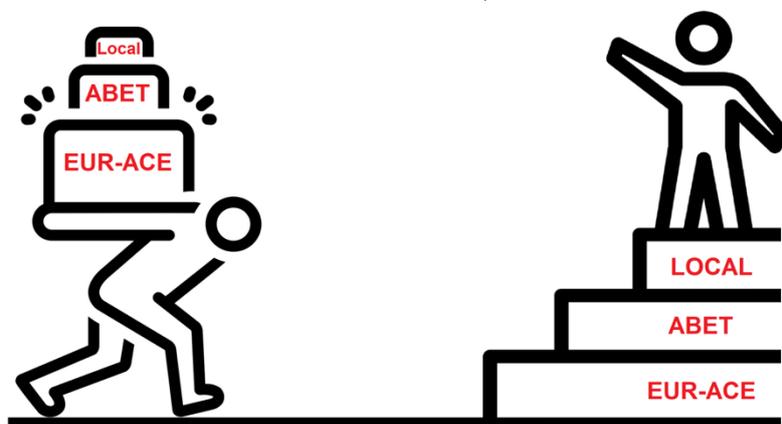
Although there are many reference books, articles, and guidelines addressing the preparation and sustainability phases of accreditation in engineering education, it should be acknowledged that overcoming diverse challenges is rarely straightforward. These difficulties are natural and can only be effectively addressed through experience accumulated over time.

Experience also shows that accreditation encompasses numerous interrelated processes from establishing the financial and administrative infrastructure to developing sustainable mechanisms for continuous improvement. These processes may introduce considerable challenges and workload. Among them, ensuring the uninterrupted and full support of practitioners (academic and administrative personnel) is likely the most critical factor. Once this support is secured, overcoming other challenges becomes comparatively easier.

With the full commitment of both practitioners and senior management, fostering a culture of quality and accreditation will, in the long term, not only reduce workload but also enrich the educational process, ultimately leading to higher-quality learning outcomes.

Figure 3

Accreditation Should Not Be a Burden, Make It to Be Facilitator



In conclusion, while accreditation inevitably involves certain challenges and additional workload, it should, as illustrated in Figure 3, be regarded not as a burden but as a constructive and supportive mechanism, one that significantly strengthens and enhances the overall quality of engineering education.

Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

All information contained in the article is based on experience. The ChatGPT tool was used during the writing process solely to improve the English language, translate certain sections from Turkish to English, and correct the reference formatting of the paper.

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