Proposal: Technical description

IMPLEMENTING AUTOMATED GENERATION OF CUSTOMIZED LEARNING MATERIALS THROUGH GENERATIVE-AI IN HIGHER EDUCATIONAL INSTITUTIONS

List of participants

Table – 1

Participant No. *	Participant organisation name	Country
1. Sara Ravan Ramzani	GISMA University of Applied Sciences	Germany
2. Valliappan Raju	Perdana University	Malaysia
3. Jan Budik	Brno University of Technology	Czech Republic
4. Peter Konhaeusner	GISMA University of Applied Sciences	Germany
5. Fotis Papageorgiou	GISMA University of Applied Sciences	Germany
6. Marzia A. Coltri	Arden University	United Kingdom
7. Mohsen Saeedi	University Canada West	Canada
8. Hamed Taherdoost	University Canada West	Canada

1.   Excellence

This research delves into the potential of generative AI models to customize and produce educational content and administrative paperwork tailored to the needs of individual students and educators, thereby increasing efficiency and personalization in educational institutions. This research would employ a mixed-methods approach, incorporating both qualitative and quantitative data collection and analysis methods. Surveys, interviews, and case studies with educators and administrative staff would provide insights into current challenges and potential improvements. Experimental studies involving the deployment of generative AI tools in educational settings would allow for the measurement of changes in efficiency, accuracy, and educational outcomes. The motive is to develop a tool (software with interface) which can be installed as a plugin in respective institution's campus management system (CMS).

This research topic is particularly relevant as educational institutions globally strive to enhance learning experiences and operational efficiency through technology. It offers the potential to significantly impact how educational content is created and managed, leading to more personalized learning experiences and streamlined administrative processes.

1.1   Objectives and ambition

The integration of Generative AI into educational administrative works promises transformative potential, enhancing efficiency, personalization, and responsiveness. By leveraging the capabilities of advanced AI technologies, educational institutions can address a myriad of challenges associated with the creation and management of learning materials and administrative documentation. This research aims to explore the application of Generative AI to automate and customize these aspects, thereby fostering an educational environment that is more adaptable to the diverse needs of students and educators. The project seeks not only to understand the current landscape and

limitations but also to chart a course towards more innovative and efficient administrative practices within the educational sector.

RO$_1$: *To comprehend the specific challenges faced by educational administrators and educators in managing and generating administrative and learning materials.*
Rationale: Identify Current Administrative Challenges: This includes time constraints, resource limitations, and the need for personalization.

RO$_2$: *To investigate the potential of Generative AI technologies in automating the generation of educational content and administrative documents, assessing their capabilities, limitations, and suitability for various educational contexts.*
Rationale: Explore Generative AI Technologies

RO$_3$: *To examine how Generative AI can be utilized to produce customized learning materials and administrative documents that cater to the unique needs and learning paces of individual students, thereby enhancing the educational experience.*
Rationale: Enhance Customization and Personalization

RO$_4$: *To evaluate the impact of Generative AI on the efficiency and accuracy of creating educational and administrative materials, aiming to reduce manual workload and errors in document generation.*
Rationale: Improve Efficiency and Accuracy

RO$_5$: *To thoroughly investigate the ethical considerations and privacy implications of deploying Generative AI in an educational setting, ensuring the responsible use of technology that respects students' and educators' data privacy.*
Rationale: Address Ethical and Privacy Concerns

RO$_6$: *To formulate strategies for the effective implementation of Generative AI tools within educational institutions, including training for staff, integration with existing systems, and guidelines for ongoing evaluation and improvement.*
Rationale: Develop Implementation Strategies

RO$_7$: *To empirically evaluate the effects of implementing Generative AI on educational outcomes, administrative efficiency, and the satisfaction levels among students, educators, and administrative staff.*
Rationale: Assess Impact on Educational Outcomes

Therefore this research aspires to provide a comprehensive understanding of how Generative AI can revolutionize educational administrative tasks, offering insights that could significantly influence the future of education administration by fostering environments that are more engaging, efficient, and tailored to individual learning journeys.

1.2   Methodology

Overview: The research methodology for exploring the impact of Generative AI on enhancing educational administrative works is structured around a comprehensive approach that integrates both qualitative and quantitative research methods. This dual-methodology framework is essential for capturing the multifaceted implications of AI integration into educational settings, enabling a thorough investigation of its potential, challenges, and outcomes from various perspectives. The timeline can be witnessed from the below Gantt chart which indicates that six months will be needed to accomplish the above methodology process.

S.No	Tasks	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26
1	Submission of Proposal	■																									
2	Approval of Grant		■	■																							
3	Initiating to Draft				■	■	■																				
4	Identifying Literature and Reviewing					■	■	■	■																		
5	Embarking Data Collection - Interviewing							■	■	■	■																
6	Embarking Data Collection - Forwarding Questionnaire							■	■	■	■	■															
7	Consolidating Data Collection											■	■	■													
8	Analysing the Data													■	■	■	■										
9	Development of Generative-AI tool																	■	■	■	■	■					
10	Filing Patent / Copyrights in the name of sponsor																						■	■	■	■	
11	Publishing the project in a high-impact journal																				■	■	■	■	■	■	
12	Submission of Final draft of Project to sponsor																										■

Table 2 - Gantt chart

From above Table-2 it can be understood that Phase-1 will have qualitative data collection and further to that will be quantitative data collection. For quantitative data collection ten higher educational institutions will be considered. Among all institutions, the majority will be derived from Germany, United Kingdom, Czech Republic, Malaysia and India considering the experience of team members in their respective countries.

1.2.1 Research Paradigm

The study adopts a pragmatic research paradigm, which is particularly suited for research in new technological applications within educational settings. This paradigm emphasizes the practical impact of research findings and supports the use of mixed methods to explore complex research questions. By focusing on real-world applications and outcomes, the pragmatic approach facilitates a flexible research strategy that can adapt to the evolving nature of Generative AI technologies and their impact on educational administration.

1.2.2 Research Design

Literature Review: An extensive review of existing literature on Generative AI applications within educational contexts and administrative processes. This foundational step will help identify gaps in current knowledge, establish theoretical frameworks, and refine the research questions.

Surveys and Questionnaires: Quantitative data will be collected through surveys and questionnaires distributed to educators, administrators, and possibly students within various educational institutions. This approach aims to gather broad insights into the current challenges in educational administration, perceptions of AI technologies, and potential areas for AI application.

Interviews and Focus Groups: Qualitative data will be obtained through semi-structured interviews and focus groups with a purposive sample of educational stakeholders, including teachers, school administrators, policy makers, and AI technology developers. This method allows for in-depth exploration of experiences, expectations, and concerns related to the integration of Generative AI in educational administrative works.

Case Studies: The research will include case studies of educational institutions that have begun to implement Generative AI tools for administrative purposes. These case studies will provide valuable insights into the practical aspects of AI integration, including implementation strategies, challenges faced, and the observed impacts on efficiency, personalization, and educational outcomes.

Experimental Studies: Where feasible, experimental studies involving the deployment of Generative AI tools in controlled educational settings may be conducted. These studies will provide empirical data on the effects of AI on administrative efficiency, document accuracy, and customization of educational materials.

Data Analysis: Quantitative data from surveys and experimental studies will be analysed using statistical methods to identify patterns, correlations, and potential impacts of AI applications. Qualitative data from interviews, focus groups, and case studies will be analysed thematically to extract insights into stakeholder perceptions, experiences, and the qualitative impact of AI integration.

Ethical Considerations and Privacy: Throughout the research, ethical considerations, especially concerning privacy and data protection, will be paramount. Research protocols will be developed in compliance with relevant ethical guidelines and privacy laws to ensure the protection of participants' information.

1.2.3 Gathering Data

Foremost task in this project is to gather data from educational institutions on understanding their documentation works. Following section will illustrate the steps involved in collecting data from the Universities or HEIs (Higher Educational Institutions)

Table – 3

| Document needed from Universities / HEIs	Generative AI Tool	Purpose of Tool
Institutional Self-Study Reports	Text Generation AI (e.g., GPT-like models)	To automate the generation of comprehensive self-study reports by compiling data and narratives from various departments within the university.
Course and Program Descriptions	Text Generation AI (e.g., GPT-like models)	To produce detailed and consistent descriptions of all courses and programs offered, ensuring clarity and completeness for accreditation purposes.
Faculty Qualifications and Publications	Data Extraction and Summarization AI	To extract and summarize faculty qualifications and publications from databases and CVs, presenting them in a standardized format.
Student Outcomes Data (Graduation Rates, Employment Rates)	Data Analysis & Reporting AI	To analyse student data, generate insights on outcomes such as graduation and employment rates, and produce reports in formats required by accrediting bodies.
Research Output and Impact	Data Analysis and Summarization AI	To aggregate and summarize information about the university's research activities, including publications, citations, and grants, highlighting the institution's impact.
Financial Reports and Budget Documents	Financial Data Analysis & Generation AI	To compile and generate detailed financial reports and budget documents, ensuring accuracy and compliance with financial standards required for accreditation.
Strategic Plans and Institutional Goals	Text Generation AI (e.g., GPT-like models)	To assist in the drafting of strategic plans and the articulation of institutional goals, ensuring alignment with accreditation criteria and institutional vision.
Student and Faculty Surveys and Feedback	Sentiment Analysis AI	To analyse qualitative feedback from students and faculty, providing summaries that can inform the self-study report and strategic planning.

The above table represents a broad overview of the types of documents essentially needed from the universities which are used for accreditation and ranking processes. And the corresponding Generative-AI tools are listed that can be leveraged to streamline their preparation. It's important to note that while AI can significantly enhance efficiency and consistency in document creation and data analysis, human oversight is crucial to ensure accuracy, compliance with standards, and the nuanced presentation of the institution's strengths and challenges.

2.   Impact

2.1   Project's pathways towards impact

The integration of Generative AI into the management of documents required for university accreditation and ranking purposes stands to significantly transform existing administrative workflows, enhance performance, and alleviate work pressure. By automating the generation and analysis of complex documents, such as self-study reports, course descriptions, and faculty qualifications, universities can achieve a higher level of accuracy and consistency, which is critical for accreditation processes. This automation also allows for the efficient summarization of vast amounts of data, including research outputs and student outcomes, thereby providing a clearer, more comprehensive view of the institution's performance to accrediting bodies. Additionally, the use of Generative AI can reduce the time and labor traditionally required for these tasks, freeing up faculty and administrative staff to focus on more strategic and impactful activities. The implementation of AI tools for sentiment analysis of student and faculty feedback further enhances the ability of institutions to respond proactively to the needs and concerns of their communities, promoting a more responsive and adaptive educational environment. Overall, the adoption of Generative AI in this context not only streamlines administrative processes but also contributes to the continuous improvement of educational quality, fostering an environment where administrative efficiency and academic excellence go hand in hand.

Figure 1: Project Path
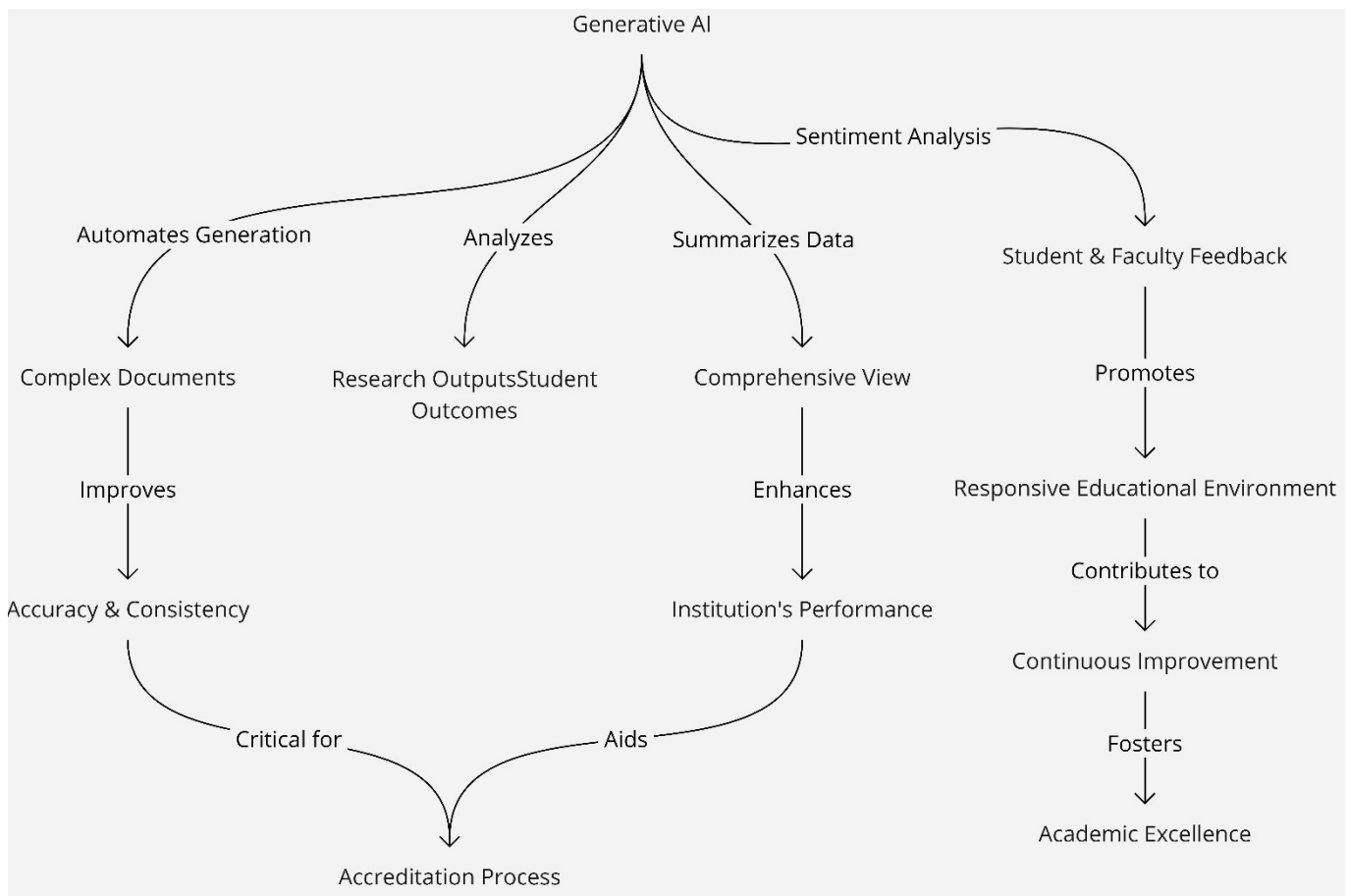
2.2   Project Budget

We will apply for the EU Horizon grant.

3. Key Participants

This research project comprises three participants, while all possess doctoral degree the two are from European countries from two different institutions with scintillating background in technology and profound experience in academic affairs. One participant from Asian continent with diversified background in research and projects. The right composition of team is considered as main parameter of a project, therefore more care was taken to invite like-minded people and expertise profiles to be part of this project. Following are the participants of this project,

Table - 5

Participant No. *	Participant organisation name	Country
1. Sara Ravan Ramzani	GISMA University of Applied Sciences	Germany
2. Valliappan Raju	Perdana University	Malaysia
3. Jan Budik	Brno University of Technology	Czech Republic
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8. Hamed Taherdoost	University Canada West	Canada

a)   *Mini Bio of Participants*

1. **Professor Dr. Sara Ravan Ramzani, Ph.D.** is the lead researcher of this project and Sara Ravan Ramzani is a Professor for Research and Quantitative Methods at GISMA University of Applied Sciences, Potsdam, Germany, She was educated at UPM, where she received her PhD in Economics and information systems in 2015, Sara has published 84 papers to date, and received the "best innovative paper award" from the Sydney International Business Research Conference in 2018. Sara is also the Chief Executive Editor of the Journal of Development Economics, Springer, Horizon journals from 2019 -2022 & She is the main author for SDG9 and SGD 16. Sara has several years of experience as a senior lecturer, programme leader and postgraduate director at International universities in Malaysia and Singapore, and has supervised 24 PhD students, primarily in the fields of Project Management, Business, and Finance.

2. **Professor Dr. Valliappan Raju, Ph.D.** specializes in research methodology and exerts as senior researcher at Brno University of Technology, Czech Republic. He spearheads Research division at Perdana University, Malaysia. He also serves as Dissertation Supervisor at Arden University, Germany. On April 2022 he was conferred full Professorship and he exercises his PostDoc Fellow at International Islamic University of Malaysia on a FinTech research. He has published more than 250+ research publications which includes Scopus (Q1), SSCI, and EI indexed journals. He is appointed as External Examiner to assess Ph.D. Viva defense at Universities in Malaysia, UK, Ghana, and India. Under his supervision, 63 candidates have

graduated with Ph.D. degree. He serves as a proud member of Oxford Philosophical society (UK). He reviews World Bank Conference Journals (USA) and appointed as Guest Editor for Q1 journals. He is the founder/editor of Journal of Reproducible Research (JRR). Vally's book *Fundamentals of Thesis: A Step-by-Step guide for drafting Ph.D. Thesis* was well received among the research community. Vally has written numerous articles related to Sustainable Development Goal (SDG) 4 – quality education, 9 – Industry, Innovation and Infrastructure, 16 – Peace, Justice and Strong Institutions. He has secured research grants from public and private institutions worth more than USD 9 million as on 2022. A research on economics behind education was one of his highly cited work in Scopus database. Prof Vally delivers lectures on entrepreneurship, research methodology and management modules to Master degree students and doctoral candidates. Recognizing his academic talent, he was given Resident Pass-Talent (RP-T) Visa by Immigration of Malaysia. Prior to his academic career, he founded an Animation College in India and later merged it to a private University. Vally now primarily focuses on Industry 4.0 and 5.0 research with Delphi Technique. His interests remain in Anthropology and FinTech. For this EU grant submission, his prior experience in IR4.0 could be added advance and his present work on Industry 5.0 led him to be a participant of this great team.

3. **Dr. Jan Budik, Ph.D.** has a strong background in programming and data analysis, focusing on quantitative analysis and risk management in economics. He holds an MBA in Economics and Financial Management (2022), a Ph.D. in Economics and Management (2013), and a master's degree in Automation, Cybernetics, and Control from the Faculty of Electrical Engineering and Communication (2009). His advantage lies in his deep knowledge of these diverse fields, which combine economics and information technology. He currently works as a researcher and teacher at Brno University of Technology and as the Head of Risk Management at an investment company that is focused on administering various types of investment funds. As a Head of RM is responsible for analysing market data from various sectors and responsible for stress testing (liquidity) and investment decision-making. He is also a board member of this company and is responsible for management decision-making. Jan has previously worked as a Quantitative Research Specialist in a company focused on market data analysis and he worked in a team that was focused on modelling of uncertain time series such as stock price and economic indicators and he worked on implementation of prediction models to production. He also worked as Data Analyst at a company that focused on implementing artificial intelligence into real-world applications. His information technology workflow contains Python programming language and related python packages for data manipulation, data analysis and visualization (Pandas, NumPy, SciPy,Scikit-learn, Keras, Plotly, Dash, etcetera. As a member of the project team, he can be useful with his knowledge of data analysis and can help with developing mathematical models for predictions.

4. **Prof. Dr. Peter Konhäusner,** Professor of Digital Entrepreneurship, at GISMA University of Applied Sciences. Dr. Konhäusner's main research topics include entrepreneurship and business administration, marketing as well as digitisation. Current fields of interest include the business implications as well as HR and process impacts of the AI revolution. Besides teaching and scientific work, Dr. Konhäusner works as an independent consultant internationally. Especially assisting start-ups and SMEs in growing more prominent, finding the right marketing & go-to-market strategy and overcoming difficult times. Being a managing partner in the PR & marketing agency BC Communication enables Dr. Konhäusner to put his extensive expertise in a corporate context to work. Before teaching, the GISMA Professor finished his studies at the Economics and Business Administration University in Vienna as well as at Babeș-Bolyai University in Cluj-Napoca, and ran a media publishing house for over 15 years. By profession, he is a manager and an entrepreneur for more than 20 years, enjoying now transferring practical experiences to students through presenting and applying methods and theories.

5. **Prof. Dr. Fotis Papageorgiou**, a professor of social sciences at Gisma University and the university's vice president (academic).He studied psychology, philosophy and politics in Greece (Panteion University) and the United Kingdom (Essex University) and is a registered psychologist. In addition to his teaching work, he held leading positions in higher education. His research interests are global and focus on judgment, authority and the internationalization of higher education.

6. **Dr. Marzia A. Coltri** is an international scholar with a PhD in Philosophy and Religion from the University of Birmingham. She is currently a full-time lecturer in intercultural education at Arden University. Her expertise spans a wide range of core subjects, including the Humanities, Business, Technology, Social Sciences and Leadership modules, both in the UK and abroad. She has published peer-reviewed papers and presented at various international conferences in the field of the Humanities, demonstrating a deep commitment to philosophical investigation and critical thinking. She is a peer reviewer and co-organiser for an AI Special Session titled 'The Role of Ethics in Rapid Digital and AI Development' at the 7th Annual International Forum on Ethics, ATINER, in Athens, Greece, from May 6

to 9, 2024. She additionally collaborates with the University of South Africa (UNISA), and previously was researcher at the Centre for AI and Digital Policy (CAIDP), establishing her reputation as a reputable researcher in AI policy, ethics and digital inclusion. In addition to her academic pursuits, she is an accredited counsellor (MNCPS - Acc.) and MBACP. Her commitment to fostering inclusive educational environments reflects her holistic approach to education and societal well-being.

7. **Prof. Dr. Mohsen Saeedi**, a professor of environmental sustainability, joined University Canada West (UCW) in the Spring of 2022, bringing a wealth of experience to his graduate-level teaching. Dr. Saeedi embarked on his academic journey with a PhD from the University of Tehran in 2003 and later earned his second PhD from the University of British Columbia, Vancouver, Canada. In addition to his academic pursuits, Dr. Saeedi boasts over 25 years of industrial and consulting experience. His expertise in environmental and quality management systems, sustainability studies, and diverse projects in the energy, oil, petrochemical, mining, transportation, and construction sectors distinguishes his professional profile. He has also made significant contributions as a research engineer and senior hydrologist in Canada, working with consulting/engineering firms in North Vancouver and Burnaby.

8. **Assoc. Prof. Dr. Hamed Taherdoost** is an award-winning research and development professional with over 20 years of experience in both industry and academia. He has been involved in various sectors including healthcare, transportation, residential, oil and gas, and IT. In academia, Dr. Taherdoost has held positions as a university lecturer and researcher in Southeast Asia, the Middle East, and North America. His views on science and technology have been widely published in esteemed scientific publishers including Elsevier, Springer, and IEEE. He has authored over 230 scientific articles, 30 book chapters, and 15 books. Throughout his career, he has been recognized with numerous awards and accolades for his contributions. He is a computer scientist renowned for his expertise in cybersecurity and blockchain technologies and was recognized among the top 2% of world scientists by Elsevier-Stanford for three consecutive years, spanning from 2021 to 2023. He is a Certified Cyber Security Professional and Certified Graduate Technologist. He is a senior member of IEEE, Working Group Member of International Federation for Information Processing - IFIP TC 11 - Human Aspects of Information Security and Assurance and Information Security Management and some other international professional associations. Currently, Dr. Taherdoost is actively engaged in multidisciplinary research projects focusing on innovation in information technology, blockchain, and cybersecurity.

Table - 6: List of work packages

Work package No	Work Package Title	Lead Participant No	Lead Participant Short Name	Person-Months	Start Month	End month
1.	Identifying HEI's practices and obtaining documentations	2	Vally	1 x 5	07/2024	11/2024
2.	Data Collection	All	All	3 x 4	11/2024	02/2025
3.	Data Analysis	3	Budik	1 x 5	01/2025	05/2025
4.	Patent Registration	1	Sara	1 x 3	07/2024	10 /2024
5.	Conference Setup	All	All	3 x 4	07/2024	02/2025
6.	Publications	All	All	3 x 4	11/2025	03/2025

4. Outcome of Project

The culmination of this project will see the development of a state-of-the-art Generative AI software designed specifically for the automation and enhancement of document management processes within university administrative and accreditation contexts. This software represents a significant leap forward in the application of AI technologies in educational administration, offering an unparalleled level of efficiency, accuracy, and personalization in the creation and analysis of critical documents.

4.1 Key Outcomes

a) Development of Generative AI Software: A highly sophisticated Generative AI software will be developed, tailored to address the unique needs of university accreditation and ranking processes. This tool will automate the generation of self-study reports, course and program descriptions, faculty qualifications, financial reports, and more, with an emphasis on compliance, consistency, and clarity.

b) Publication in a Renowned Journal: The project will yield a comprehensive research publication, documenting the development process, capabilities, and the empirical impact of the Generative AI software on administrative efficiency and accreditation outcomes. This publication will be submitted to a leading journal in the field of educational technology or AI applications, aiming to contribute significantly to the academic discourse on AI's role in education.

c) Patent Registration: To safeguard the intellectual property and innovative approaches encapsulated in the Generative AI software, a patent will be registered. This patent will provide global protection for the unique methodologies and technologies developed, ensuring that any external entities seeking to utilize similar approaches will need to obtain a license, thereby generating a potential revenue stream through royalties.

d) Execution of an International Conference or Summit: In recognition of the ground-breaking work conducted in this project, an international conference or summit will be organized. This event will serve as a platform for disseminating the findings, demonstrating the software's capabilities, and engaging with stakeholders from the educational, technological, and administrative sectors worldwide. The conference will foster discussions on the future of AI in education, encourage collaborations, and set the stage for the next wave of innovations in educational administration.

The successful completion of this project and its outcomes will not only establish a new benchmark for the application of Generative AI in education but also position the team as pioneers in this emerging field. Through the software development, significant publication, patent registration, and execution of a global conference, this project aims to lead the way in transforming educational administration for the better, making it more efficient, adaptable, and responsive to the needs of students and educators alike.

5. Summary

In the rapidly evolving landscape of higher education, the need for innovative solutions to enhance administrative efficiency, improve accreditation processes, and personalize the educational experience has never been more critical. This project proposes the development of a cutting-edge Generative AI software, tailored specifically to meet the unique needs of university administration and accreditation efforts. Through automating the generation and analysis of essential documents, this software promises to revolutionize the way universities approach administrative tasks, ensuring a higher degree of accuracy, consistency, and personalization. The heart of this proposal lies in its potential to significantly alleviate the administrative burden on faculty and staff, freeing up valuable resources to be redirected towards teaching, research, and student engagement. By streamlining processes such as the creation of self-study reports, course descriptions, and faculty qualifications, the proposed Generative AI software will not only enhance operational efficiency but also contribute to improving the quality of education and research outcomes.

Key to the project's success will be the publication of our findings in a leading academic journal, establishing a new benchmark in the field of educational technology. Furthermore, the protection of our innovative approach through global patent registration will ensure that our advancements will benefit our institution, potentially providing a new revenue stream through licensing agreements. The culmination of this project will be marked by the hosting of an

international conference or summit, bringing together leading minds in education, technology, and administration to discuss the future of AI in enhancing educational quality and administrative efficiency.

This proposal is not merely a call for funding; it is an invitation to be at the forefront of a paradigm shift in educational administration. By supporting this project, funders have the unique opportunity to contribute to a venture that is indispensable to any university seeking to navigate the challenges of the 21st century. The integration of Generative AI into educational administration is not just an advancement; it is a necessity for institutions dedicated to excellence and innovation in an increasingly competitive and complex global educational landscape.

5.1 Expected Results

This project, centered on deploying Generative AI to streamline university administrative processes and accreditation efforts, promises to deliver transformative outcomes across several dimensions. Key among these are a marked improvement in administrative efficiency through the automation of essential documentation processes, leading to significant time and resource savings. The accuracy and uniformity of documents will be significantly enhanced, reducing errors and standardizing reporting for accreditation and evaluations. The ability to customize educational materials and communications will be vastly improved, offering a more personalized experience for students. Advanced analytics provided by the software will offer deep insights into various aspects of university performance, supporting strategic decision-making. The protection of the developed technology through a global patent will safeguard and potentially monetize the intellectual property. Additionally, the dissemination of project insights through scholarly publication will enrich the broader academic and technological dialogue on AI's role in education. By hosting an international conference, the project will catalyze networking and collaborative opportunities, establishing a benchmark for the integration of AI in educational administration and setting a precedent for future innovations in the field.