



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Graduate School of Technology Management



PROJECT MANAGEMENT GROUP



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BACKGROUND

Project Management (PM) as an academic, engineering discipline has a long history at the University of Pretoria. The Department's PM started in 1988 as an industry-sponsored Chair and developed to full Master's and Doctoral Degrees in Project Management (MPM). It subsequently expanded training to one-year certificate programs as well as multiple short courses in the field of project management.

In addition to training, the PMG participates in national and international activities related to the enhancement of project management as a recognised and effective management discipline. These activities include the establishment of project management competency criteria, active involvement in the various ISO 21500 standards and guidelines, as well as attendance and presentations at national and international conferences. As part of its post-graduate offering, various research activities take place in the form of Masters and PhD dissertations. The research not only provides the opportunity to investigate and master specific areas of project management but also adds to the understanding, comprehension, and contribution to the field of project management.



The Masters in Project Management (MPM) at the Graduate School of Technology Management is the only program on the African Continent that has obtained the Graduate Accreditation Centre (GAC) from the Project Management Institute (PMI).

Project management continues to be one of the most sought-after skills in the modern professional society.

Education and Research Alignment

The educational content of the Masters in Project Management (MPM) focuses on FOUR main aspects.

The INITIAL FOCUS is on the fundamental aspects of project management and covers subjects such as:

- Project Planning
- Finance and Cost Management
- Project Organisation
- Procurement and Contract Management
- Risk Management
- Quality and Integration Management

The SECOND FOCUS area is specialisation. Learners must choose one of three mandatory subjects which are:

Construction Management, or Information Technology and Service Project Management, or Project Systems Engineering

The THIRD FOCUS area is electives with learners being able to select two electives from the following subjects:

- New Ventures and Entrepreneurship
- Legal Aspects
- Sustainability
- Commercialisation and Intellectual Property
- Knowledge and Information Management
- Programme and Portfolio Management
- Systems Thinking
- Industrial Marketing
- New Product Development

Finally, learners need to CONDUCT A RESEARCH PROJECT on a self-selected topic or as advised by a study leader. The intent is that a topic should be in the field of the learners' interest and contribute to the mastering of a field in project management. **The GSTM specialises in various fields of project management research.**

RESEARCH AREAS AND STUDY LEADERS

Project Communication Management, Agile and Services Project Management



Dr Taryn Barnard

Communication is very important in project management as it is critical for project success.

Research has shown that good project managers spend up to 90% of their time communicating. Good communication keeps conflict and confusion at bay by ensuring team members are aligned on project goals and know exactly what is expected from them. It builds team trust so that everyone works better together from project start to finish and the project will deliver real value based on the customer's stated needs.

This exciting field is rapidly evolving due to events such as the global pandemic and trends such as virtual team teams and advances in computer mediated communication. With the growth of people focused project development approaches such as agile and the importance of the services sector in developed economies, this field of research is always interesting and relevant.

For full list of publications, see:

[Dr Barnard](#)

Project Knowledge Management



Mr Corro van Waveren

Due to the complex, unique, and temporary nature of projects, project-to-project knowledge transfer is regarded as challenging and is currently an active topic in project management research. It has attracted attention from both practitioners and academic scholars.

The complexity of project-based environments is rooted in the execution of multiple projects sequentially and/or concurrently utilising multiple temporary teams within or across organisations. It is this discontinuous and temporary nature of teams that create problems for the rapid assimilation of new knowledge.

Research in the field of Project Knowledge Management focusses on factors that influence the sharing of knowledge along the knowledge network between projects. The mediating and moderating effects of knowledge transfer mechanism, the measurement of knowledge use. Knowledge types used in projects, post-project learning, knowledge sharing processes and models, knowledge capturing at stage-gates and other related topics.

For full list of publications, see:

[Mr van Waveren](#)

Project Portfolio Management



Prof Herman Steyn

Project Management ensures that projects are conducted in the “right” way, while Project Portfolio Management ensures that the “right” projects are undertaken.

The purposes of Project Portfolio Management is to develop, from the organisational strategy, a set of the “right” projects for the organisation. Portfolio management therefore links strategic management to individual projects and programmes. It is also inextricably interwoven with the phased planning of projects, especially planning of early project phases; assessment of individual projects and project feasibility; project screening; comparing and selection projects; development of balanced sets/portfolios; high-level resource planning; detailed planning.

The process results in and execution of individual projects; and the assessment of the business impact of individual projects. While a large body of knowledge already exists in this field, organisations still find it difficult to implement strategies via projects. Students interested in research in this field will need to have a background in project and strategic management and have access to have access to executives involved in portfolio decisions.

For full list of publications, see:
[Prof Steyn](#)



Project Management Offices

Project management offices play an important role in the management of projects within many project-based organisations.

Research focus areas include the roles that PMO's play in transferring knowledge between projects and the roles they play in project portfolio management.

Project Governance



Prof Giel Bekker

Project Governance is a set of management systems, rules, protocols, relationships and structures that provide the framework within which decisions are made for project development and implementation to achieve the intended business or strategic motivation.

The development and implementation of project governance systems, structures and protocol remains a challenge in many organisations. Research in this field focus on steering committees, project sponsorship, the role and function of governance as opposed to managing and controlling as well as governance dynamics across the project life-cycle. The alignment

to corporate governance, audits, reviews, assurance and the impact of the variables associated with trans-company, trans-country projects are also investigated.

For full list of publications, see:
[Prof Bekker](#)

Project Readiness and Methodologies

When is a project ready to progress to the next phase? Should it progress and what are the conditions for continuation?

These questions forms the key inputs to the quest to develop readiness assessments to assist project decision-makers to make go-no-go decisions on capital projects. As an extension to

readiness the functions, disciplines and deliverables required across the project life-cycle are defined in the quest for a complete project methodology.



Project Sustainability

To ensure a sustainable society projects needs to address the three P's namely People, Planet and Profit.

Traditionally projects were concerned with the activities between project initiation and close-out. To ensure sustainability project sponsors and associated functions needs to view the project from idea to end-of-product life. This approach confronts the project team with questions of wider society involvement, environmental changes, decommissioning and rehabilitation of project facilities and asset/product life-cycle rather than merely project life-cycles. Research in this field is fairly current and consider the broader context and complexity that impact project delivery.

Project Risk Management



Dr Schalk Grobbelaar

Projects are inherently risky endeavours and require appropriate risk management.

Every project has unique opportunities and threats. The objective of a project management team is to realise the project opportunities and prevent the threats from damaging the project. The actions taken by the project team may significantly influence the likelihood of this occurring. A project team has limited resources available, and for this reason, they must prioritise their actions as effectively as possible. Project Risk Management is a systematic approach used to identify and prioritise opportunities and threats to assist project teams in

delivering successful projects. Research in this field aims to test existing theories and develop new models that will increase the likelihood of delivering successful projects. Recent developments in Project Risk Management includes the application of Artificial Intelligence to identify potential risks in projects.

For full list of publications, see:
[Dr Grobbelaar \(1\)\(2\)](#)

Organisational Project Management Maturity and Project Management Success



Dr Suzaan Pretorius

**Does an organisation with a higher level of project management maturity produce more successful projects in comparison with an organisation with a lower level of maturity?
Is there an ideal level of maturity for a specific industry and, if so, what level?**

Current literature indicates that there seems to be no consensus on whether a higher level of organisational project management maturity leads to project management success or not. The maturity of an organisation is usually measured by a maturity model on a scale from 1 (lowest level) to 5 (highest level). However, it is not essential for every organisation to operate on the "highest" level of maturity, and the notion of an industry-

specific "ideal" level of maturity has been suggested by a number of authors. Research in this field focus on Project Management Maturity Models (PMMM's) and the assessment of project management success.

For full list of publications, see: [Dr Pretorius](#)



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