

Internship list as offered within the context of the minor "International entrepreneurship and development"

This list is maintained and updated from time to time by Otto Kroesen as internship coordinator of the above-mentioned minor. Some internships are offered by the section technology dynamics and sustainable development, other internships involve other partners. Usually the final internship assignment is formulated in cooperation between the student (it should be interesting enough), the NGO or company involved (which should receive a concrete and tangible deliverable) and the internship coordinator (watching over the learning goals of the minor concerned). Most of the internship assignments mentioned are a sort of half products, to be finalized in such cooperation.

Contact information and addresses are not mentioned in this list. If you have interest in some of the internship opportunities mentioned, please take up contact with Otto Kroesen. He will either give you more information or introduce you to websites and partners involved, either at this university or directly towards overseas partners.

Mostly the internships require a time investment of at least three months.

Internships at NGO's and in general in developing countries do not pay. On the other hand living in those countries is not very costly. The university fund supports the students with an amount of money of € 340 and sometimes the faculties, from which the students come, also have special funds. Living costs, shelter and food and traveling in developing countries in general should be possible for an amount of money of at maximum € 300 per month. This is to be need negotiated with the receiving partner.

The date of the start of the internship is also negotiable with the NGO, which hosts the students. In general the earlier a student starts the negotiation process, the more the NGO can adapt the time window of the internship to his or her wishes.

In general an internship requires three months of preparation before the actual start: a concrete assignment has to be worked out, tickets, visa, money arrangements etc. - it takes time. So please start early!

If this list can be supplemented by new internship opportunities, please send them with relevant information to Otto Kroesen.

The internship list starts with a number of preferred internships. These are internships with partners with whom there is an established partnership relation. In cooperation with these partners more research is conducted so that the internship is embedded in a series of follow-up assignments. These internships are preferred because the joint efforts of follow-up groups have much more impact than standalone internships. Often these internships are also better facilitated.

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Preferred internships

Africa

Windmill technology in Kenya

Assess the windmill technology available, the benefits and disadvantages for the community, possible locations and make an implementation plan. At this stage a business plan is required including the feasibility of a leasing system for batteries. A small company now has the knowledge of how to build a so-called Hugh Piggot mill. A business plan should especially consider who the customers can be and to which price and what use the windmills should be built in order to serve them.

Solid waste in Kenya

The treatment of solid waste is a complicated issue. There are problems with transport, recycling, pollution, and separation etc. By now a feasibility study has been carried out and they need a follow up to address other issues. One of the possible solutions is to use solid waste to produce biogas. An NGO in Kenya is partner in the research.

Cooking stove biodiesel

At HSHC, an NGO in the neighborhood of Nairobi, there is a little factory producing biodiesel. The biodiesel factory is running profitably and it seeks to create a larger market by means of biodiesel cooking stoves. How can they be designed? How can they find a market? These two questions are of course interrelated.

Microcredit

Some research has been done on the effective use of microcredit systems in Kenya. More work is to be done in terms of designing a training course for the effective use of microcredit and also in studying the limitations on microcredit systems by present legislation. How can small businesses work in Kenya and make use of such microcredit systems and retaining success? Circles of people, who voluntarily support each other which in turn is one way of using microcredit systems which is practiced. One way to go forward may consist in professionalizing these circles. There is sort of a trade union of circles, KUSCO.

Solar systems

A solar systems Company in Kenya installs and maintains small and medium-sized solar systems. There is a growing market for such systems. This market can be further explored by spreading information on the use of solar systems and identifying the needs in the market. At present not identified worthwhile projects involving capacity training, vocational training can be explored.

Guest house design

Tangaza College is expecting interns from all of Africa working on different projects. A related NGO is expected to host these interns and in the same guesthouse training courses for vocational skills for young people should be organized. How to design a guesthouse, combined with offices, which create an open atmosphere, promoting contacts between different user groups, and combining high-quality with a low price?

Technology diffusion in Mekelle in Ethiopia

At the University of Mekelle several locally applicable technologies have been developed like water evaporation options, a bread baking machine adapted to local usage, biogas. How can these technologies be connected to people's needs and to the market? The students explore these and other technologies and market and business opportunities evolving out of them.

Windmill technology in Mekelle in Ethiopia

In cooperation with the University of Mekelle the need for energy can be explored, causes of lack of energy and possible solutions et cetera. Especially small scale windmill technology can be explored, if possible also by building a prototype.

A cooking stove in Mekelle in Ethiopia

Small biogas installations (household usage) have been introduced in Ethiopia in the neighborhood of Mekelle as prototypes. The material costs have been paid by an NGO and the farmer and his family contributed the labor. They do produce gas, but are still not used, because the cooking stove delivered together with the prototype is not suitable for the baking of the typically Ethiopian pancakes, the farmers use as their daily food. The farmers are cooking in the old way now and the biogas installations are lying idle. What can be done? The assignment is about the design of a suitable cooking stove connected to the biogas installation.

Internship opportunities Bangladesh

Water logging in southwest Bangladesh

Western and especially Dutch companies have been involved in building many artificial works, e.g. dikes etc. Lessons from this short-term sort of engineering should be learned. This made the rivers in southwest Bangladesh deposit their silt in the riverbed itself. Some rivers already have disappeared completely and there are serious problems of water logging. What can be done and how can agreement about such policies be reached? Both problems are to be tackled at once. One of the solutions is to create temporary water reservoirs by making a breach in some dikes. Local farmers and government institutions however disagree on the approach. A feasibility study can bring them in discussion and possibly nearer to each other. Western and especially Dutch companies have been involved in building many artificial works, e.g. dikes etc. More often than not these solutions also caused new problems. Lessons from this short-term sort of engineering should be learned.

Deep tube well and targeted tube well

In general the rural people only accept the deep tube well and the targeted tube well as a solution for arsenic contamination of drinking water. How sustainable are those solutions in the long run? And what institutional changes on the village level do they bring about or require? The answer to these questions implies both technical and social research. The students can participate in ongoing projects and research best practices contribute to the most sustainable approach in social respect also. Community management is necessary to prevent the possible effect of these technologies, i.e. that only the rich can afford these more expensive tube wells.

Capacity building of local government

Promoting the quality of leadership, management and community participation of local governments in Bangladesh is a high priority. A student can participate in the design, implementation and evaluation of such programs.

Surinam

Exploring business opportunities in and in the surroundings of Moengo

In the eastern part of Surinam, where the production of aluminium has stopped, upgrading of the community is urgent. The first part of the assignment is to explore how small businesses in Surinam usually function. The next part of the assignment is to explore all such business models can be improved and be applied to new businesses, especially businesses which are not available yet in Moengo. This can be applied to bread baking businesses, solar energy, production and selling of vegetables among others, opportunities for tourism.

Athletic court in Moengo

Moengo is lacking sufficient sports facilities, especially related to in Surinam very popular athletic sports. The assignment entails the design of such an athletic court for a minimal budget in discussion with stakeholders and end-users as to place, facilities and other requirements.

Electricity in Pelgrimkondre

Pelgrimkondre is a little village in the neighborhood of Moengo, surrounded by and functioning as a center of other small villages. It has a school and a church and it has wonderful opportunities for agriculture and tourism. Since the inland war of 1986-1992 however there is no electricity. The assignment is to research what the best options are for Pelgrimkondre: it either can be connected to the electricity grid of Moengo, but it may also be attractive to install an independent solar system, but this last option would entail the creation of a large support base for technological change. This would also involve the vocational training school in Moengo.

Micro-credit in Pelgrimkondre

In Pelgrimkondre the school also functions as community center and is planning to do so more deliberately. It is involved in job creation and micro-financial arrangements for startups. The internship assignment entails the design of a financial system of microcredit which suits the needs of the school and other stakeholders. This is more than a financial or technical problem. It should be a financial system which meets the social requirements and these should duly be taken into account in designing it.

Biogas in Mongo

In the neighborhood of Moengo the old mine is being used as a dumping station for waste. This is quite detrimental for the environment and therefore not sustainable, whereas the waste could be used to produce energy as well. The student following up this internship assignment is supposed to conduct a feasibility study and an actor analysis in order to reach a support base for the installation of a biogas station. Such a feasibility study can become the base of a change in policy of the municipality and/or as a base for acquiring funding for such a project.

Solar energy and vocational training

In Moengo at the Barronschool for vocational training teachers are interested in exploring the opportunities for solar energy in the region. By now many villages in the neighborhood, which are not connected to the electricity grid, only have electricity in the evening by means of diesel generators. The government is paying for the oil and the maintenance of these systems. There is a gut feeling, that somehow if this money were spent to solar energy it should be possible to have a cheaper source of energy, more environmentally friendly and

more efficient in that it provides energy all day. How can such a system change be brought about and what could be the role of the Barronschool in this regard? Can this school make a beginning by training professionals and starting businesses to introduce such systems on a smaller scale?

Upgrading the center of Moengo

A long main street leads through and functions more or less as the "center" of Moengo. Some parts of this long street are unsafe for pedestrians, some parts have many shops, but they don't look all too good, some parts do function as sort of centers, where people meet, but even these places could use some redesign to make them more attractive. Which architectural and other measures can be proposed to improve the attractiveness and safety and cleanliness of these long street for a low budget with an optimal impact? A challenging assignment for a student from architecture.

Other internship opportunities

Africa

Working with an NGO in Kenya

Several internship opportunities to be concretized together with the partner on: marketing of oil products, prevention of bird predation on oil crops, poultry/incubation project, rural internet office, water availability.

Tanzania - Assessing the effectiveness and impact of the Siphon water filter among local rural households

Connect International has been piloting the household Siphon water filter for three years in rural areas in Tanzania, Zambia and Mozambique. International attention is growing for this very low-cost filter (7 to 8 Euro for the end client) which has explicitly been developed for the Bottom of the Pyramid (it is a Dutch invention!), and that removes bacteria with a log 4 to 5 efficiency (extensive lab tests are available). However, more evidence is required about its effectiveness (how do people use it, does it effectively remove bacteria after several months of use still, do people use the filter consequently and for every member in the family?) and impact (to what extent does diarrhea decrease?) in real life to proof the level of success of the filter in reality and get the recognition from international agencies that need to have further proof, among others to decide whether or not to use the filter in emergencies (in the Haiti crisis the filter has only be used at a small scale because organizations were afraid to use it large scale as long as full real life proof has not been delivered, despite the fact that the filter could have plaid a significant role during this crisis in solving the water problems). Also the way in which people use the filter and their level of motivation to buy a new filter afterwards will need to be investigated. Foundation Connect International has a survey method for the research which needs to be adapted to fit the requirements of the assessment and be completed with qualitative research in the field. We hope to send two students to our partner organization SHIPO based in the district town Njombe, Tanzania for this purpose. They will be properly accommodated and be intensively guided and facilitated during the assessment and report writing.

Repairing water pumps in Kenya

Setting up a business for the repair of iron water pumps, including both the technology and the business itself. A small business is working on it presently. They need technical support in welding technologies, logistics and further business opportunities.

Sustainability in rural Uganda

Learning the lessons of the experiments with the sustainable Village in Africa for the local situation of an NGO in Uganda. There is a small NGO in Uganda supporting agriculture, health, education etc. The "sustainable village" concept provides a combination of sustainable fresh water supply, improved agricultural methods, among other things by diversification, general water management and sometimes job training. The student studies the results of the sustainable village approach in Delft and explores the possibilities of implementing these lessons in the context of Uganda together with the local NGO.

Water purification in Egypt

Underground removal of magnesium to prevent the clogging of irrigation pipelines in some villages. In Egypt more and more large-scale freshwater systems are developed. But some little villages are still dependent on groundwater for drinking water and irrigation. Research is done after systems that can remove the magnesium underground.

A business plan for light industrial equipment

Together with partners in Tanzania the student conducts a feasibility study and if possible makes a business plan for light industrial equipment like windmills, biogas equipment, compactors, transport equipment, cold rooms, agricultural equipment.

Windmill technology for desalinization of drinking water in Somaliland

By means of windmills and reversed osmosis clean drinking water is produced which is transported and sold by an independent business. After the first pilot project there is a lot of work to do: optimization of the technology to make it more efficient, redesigning the product in order to make it more suitable for manufacture and cheaper, raising income from investments, subsidies, sponsorship etc.

The Gambia

Internship opportunities with NICE

(Next door Internet, Communication and Energy Service Shop - a business providing an affordable mix of internet, communication, education and energy services. The aim is to realize a chain of internet shops in The Gambia).

Internship opportunities in The Gambia within the framework of the NICE project

Broadband connection

A study of different technologies available for broadband connection, which should serve as a valuable input for the discussion with the Gambian government on the licensing of broadband connections.

Hardware

The internet shops should use the latest technological developments in terms of robustness, energy efficiency, but also quality. The study gives an overview of available technologies in order to make a well-founded choice.

Software

It should be made possible that clients of one shop enter another shop and log in with the same name and password. Other features should be included in this technology in order to make the chain of internet cafés attractive.

Content/education

Education packages also make the shops attractive. Vocational training, web design etc. adapted to the local situation, including training for teachers, can be developed and supported.

Sustainable building refurbishment

Existing buildings capture a lot of heat. An analysis can help to renovate existing buildings with easy and cost effective solutions for the cooling problems.

Sustainable new buildings

At a prominent location a new building should be built, easy, not expensive, sustainable. A student in architecture could do a good job in this respect.

Battery charging -- implementation

A newly designed rechargeable battery must be promoted and its use be studied. A student will get the chance to experience introduction of new products from nearby.

Economic analysis -- base of the pyramid

What would be the best locations for the Gambia Internet cafés? How big should such locations be? What other requirements should be taken into consideration?

Quality control

New technologies introduce new ways of working. Maintenance, financial control and other operations: how to implement them properly and get the cafés to work according to the required quality standards?

Internship opportunities Bangladesh

Climate change in Bangladesh

The study of climate change and its consequences in Bangladesh is only beginning. The student is supposed to make an overview of the present research, interview people involved and set priorities for further action. This is to be done together with a small research institution in Bangladesh.

Handbook of safe water options for the poor

A handbook is in the making to spread knowledge about best practices in creating safe water options (among other things arsenic free) in the rural areas of Bangladesh. Together with partners in Bangladesh the student develops a strategy to spread this knowledge. The handbook should be finalized together with Bangladeshi partners and ways to diffuse this knowledge should be explored.

Shrimp production

Shrimp production in Bangladesh brings in a lot of foreign currency, but its production is detrimental to the environment and unsustainable. How is the debate about the issue going and how can alternative policies be designed and promoted? An NGO in the region supports the research.

Several research themes at BCAS

The Bangladesh Center for Advanced Studies is an independent scientific institution, which studies on the environment, governance, poverty alleviation and economic growth. Internship assignments can be defined by mutual agreement. More information on their website:

<http://www.bcas.net/>

Diapers for mentally disabled children?

A Dutch foundation is supporting a Bangladeshi initiative to take care of mentally disabled children who are not toilet trained. The use of diapers is being considered, but this would introduce a waste problem. An extra problem is constituted by the fact that in the

Bangladeshi culture changing diapers of another person's children in often not so hygienic circumstances and a warm climate is experienced as a dirty job. The student is required to list and evaluate options for dealing with these problems.

The integration of science and culture in Bangladesh

The present problems of Bangladesh often hide the rich history of the region. How is the present predicament of Bangladesh linked with this larger perspective? How is the mentality of the people formed by the trends of this long-term cultural development? What are threats and opportunities from this perspective? By means of literature study and interviews the students explore how the institutional culture before, during and after colonial times developed and explores on the basis of interviews how this path dependent development could take the next step.

Vietnam

Integrated coastal zone management and marine management in Vietnam

The Faculty of Ocean and Coastal Engineering of the Water Resources University in Hanoi, Vietnam is collaborating with TU Delft in the area of coastal zone management and marine management, and offers internships to students who are interested in working on projects related to integrated coastal zone management or similar policy-related topics in Vietnam. Specific projects can be formulated together with the Water Resources University in Hanoi.

Cambodja

Solar energy for NGOs

A small enterprise is developing small businesses for the use of solar energy. The market in Cambodia has a high potential, but is difficult to enter. The main target group for the moment is NGOs.

At present car batteries are used at diesel powered stations to fill them. Solar energy can do this more efficiently and cheaper. The technology for that needs to be developed further and this in combination with a business plan.

Surinam

Building with bamboo

TU Delft and the Anton de Kom University are working together on a project to explore the possibilities of building with bamboo.

Working with the Trio Indians in Southwest Surinam

Deep in the rain forests at the border with Brazil some villages need support in community development and in technology. In both respects there are internship opportunities. Technological problems have to do with sanitation, clean water, biogas, electricity. The assignment is to find cost-effective technological options which are suitable to the context and to seek for strategies to integrate these into the life of the community (organization, capacity training).

Curaçao

Integral Urban Development: Curaçao Revival

Curaçao Revival is a project setup with a synergetic approach in which technology and socio-economic progress are integrated to find strategies for urban prosperity. There are two projects (for now) that students can choose from. Each project is related to cultural, sport and/or recreational strategies (themes within the 'healthy city' concept) in order to create conditions for a vital urban livelihood. The proposed interventions will go paired with social and economical development initiatives within the different barrio's (neighborhoods) in Curaçao. Within these projects students will work not only with local inhabitants, but also with local and international NGO's, as well as local municipalities in order to understand their socio-cultural habits and way of living. Preliminary research will also include utilising the Curaçao diaspora in Netherlands in conjunction with the Antillenhuis in The Hague.

Project 1: Festival Santu Pretu

The culture of Dutch Caribbean islands can be found in the many historical relicts, in the various natural areas but also in the people. In order to expose and further develop these local cultures, a mobile structure is required that can host yearly festivals in which local and international artists from various performative arts can exchange and celebrate their skills. Starting in Curaçao, this event seeks to rotate yearly to each of the 6 islands and in due course may even entail other Caribbean islands. The event will not only stimulate local awareness to the value of culture in urban life, but can also serve as a breeding ground for the emergent creative economies. Students will be asked to look into the cultural background and the potentials of performative arts from the Dutch Caribbean (and in particular Curaçao), and compliment this with a technical and economical feasibility study for this mobile festival centre.

Project 2: Landhuis Jan Kock

Develop a cultural entertaining program in and around the historical building 'landhuis Jan Kock' at Curaçao. Aim of this project is to revive and expose the cultural heritage, such as the slavery period, of Curaçao by organizing and designing a theatre play. The theater play, named Living History, will be formed out of the historical stories from inhabitants of Curacao. This information will be used to come up with innovative, multi interpretable and technical design proposals for a stage of this performance. This pilot project will also need to be implemented in other locations in the future, such as the fortresses.

Nigeria, Belize, South Africa