KEYNOTE ADDRESS DELIVERED BY PROF. KWASI KWAFO ADARKWA, VICE-CHANCELLOR OF KNUST ON THE OCCASION OF THE GRADUATION OF THE FIRST BATCH OF MASTER OF SCIENCE GISNATUREM STUDENTS ON THURSDAY MARCH 22, 2007

Mr. Chairman Representative of Rector of ITC Provosts Deans of Faculties Chaplains Heads of Department Colleagues from ITC Senior Members Senior and Junior Staff Graduating Students Friends of the Media Ladies and Gentlemen

I am greatly honoured and grateful for the opportunity to address today's graduation ceremony to confer degrees on the first batch of Master of Science GISNATUREM graduands. This marks the culmination of the very fruitful Geo-information Science and Earth Observation (ITC) of the Netherlands. GISNATUREM, for those who may not know, refers to the joint KNUST-ITC Master's degree programme in applications of Geo-Information Science in Natural Resources Management. We at KNUST are indeed proud of our collaboration with ITC which has, in addition to enhancing the capacity of some of our lecturers, also made this program possible which trains middle level professionals in the applications of GIS in crucial areas of natural resources management. We are also encouraged because our linkage with ITC shows that KNUST's efforts at creating centres of excellence in various areas of academic and research endeavour are moving in the right direction. KNUST seeks mutually beneficial collaborations with institutions and organizations both within and outside Ghana. And we are sure that ITC is also benefiting from our relationship.

In which case, we are expecting that the bonds of friendship will be further strengthened by cooperation in the organization of other graduate programmes. Geo-information techniques have become important tools for supporting decision-making in critical areas of human endeavour. Ghana, like many other African countries, suffers from several natural resource and environmental mismanagement problems including deforestation, soil degradation and environmental sanitation. Sustainable management of natural resources and the environment is a major challenge for scientists, researchers, planners and policy-makers at all levels. It requires a clear understanding of the importance of spatial information and its application

to decision-making and therefore the need for staff capable of providing the technical expertise in the application of Geo-information in natural resources management.

Mr. Chairman, Ladies and Gentlemen, in September 2005, KNUST and ITC began a process that would lead eventually to the training and production of the requisite manpower for addressing the needs imposed by the problems of poor natural resources management when the two institutions took a giant joint step in admitting the first batch of nine students to start a course of study leading to an Master of Science in Geo- Information Science for Natural Resources Management. The group was made up of seven men and two women, one of whom is from our neighbouring country, Burkina Faso. The journey seemed very long and uncertain, and indeed has been filled with teething difficulties as is to be expected of all new academic programmes. Now, however, at the end of eighteen months we are gathered here to confer degrees on this first batch of hard-working men and women who have acted as the proverbial guinea pigs for our two institutions. We can all be proud and can boast of our success in equipping these young men and women with the expertise to help solve problems requiring the use of GIS.

Mr. Chairman, Ladies and Gentlemen, permit me to express the KNUST's deep appreciation to all whose devotion to duty and sacrifice have made this graduation possible. I refer particularly to the Provosts of the College of Agriculture and Natural Resources (Prof. S.A. Osei) and the College of Engineering (Prof. Francis Momade) and their able corps of lecturers and support staff from both Colleges. They have all worked hard indeed judging from the limited resources they have at their disposal.

Let me also highly appreciate the indispensable contribution of ITC to the success story we are witnessing this morning. ITC has been a training ground for KNUST staff on this programme and the human, material and financial support from ITC has been immense, to say the least. We will however continue to expect ITC to help sustain the programme, at least in the near future. Support in supplying computers and other essential hard and software for the GIS programme will go a long way in ensuring the future success, not only of the GISNATUREM programme but also of new ones that we hope will come on stream soon. Thank you, ITC.

This graduation ceremony is very significant because it represents:

- a. A key success achieved since the beginning of our collaboration.
- b. The production of men and women with requisite skills in geo- information science to provide the services required for the development of Ghana and elsewhere in the sub-region.
- c. The beginning in the provision of the critical mass with geo- information skills to propagate the use of the tool in the decision- making processes in all aspects of Ghana's socio-economic development.

d. The KNUST's capacity to produce the needed manpower for Ghana's development and that of Africa.

As I have already indicated, this is just the beginning; plans are already afoot to develop and commence new options in the GIS programme to broaden its relevance in other areas of national developmental concerns. Mr. Chairman, if! can now turn my attention to this pioneer graduating class of2007, I will like to express unqualified optimism that you have been well equipped with the tools of the trade and that you are going out into the world of work to make your presence felt. Majority of you already have employment and were indeed partially supported by your companies and organizations. Let them realize value for money and by so doing act as ambassadors for this programme in getting more prospective students for future sessions. Education is valuable only if it produces results that reflect the needs of society. My challenge to you then is to take what you have saved in your head from this programme and brings it out into the open to improve the lives and well being of our people. And remember that service to mankind is also service to God. Once again congratulations, you are now alumni of KNUST and ITC.

I wish the entire graduands well and God's blessings in their future endeavours. When success smiles at you, do not forget what KNUST has done for you. Once again, may I congratulate you for the good work done.

"AYEKOO".

May the Good Lord bless us all.

Professor Kwasi Kwafo Adarkwa Vice-Chancellor, KNUST 22nd March, 2007

SPEECH DELIVERED BY PROF. ALFRED DEHEER, REPRESENTATIVE OF THE RECTOR OF ITC ON THE OCCASION OFTHE GRADUATION OF THE FIRST BATCH OF MASTER OF SCIENCE GISNATUREM STUDENTS ON THURSDAY MARCH 22, 2007

Vice-Chancellor Provosts of Colleges Senior Members of the University Invited Guests Graduands

It is a great honour and pleasure to be here today and say a few words. Today, 8 students, who started their Master of Science study in September 2005, will graduate. That is worth a felicitation to the graduating students, and also to the Kwame Nkrumah University of Science and Technology. These students are the first students who will graduate within the so-called Joint Educational Programme between ITC and KNUST, a programme with the name GISNATUREM. The programme runs in part in Ghana and in part in ITC and lasts for 18 months. A main advantage of this construction is that education can be offered at a significantly lower cost than is possible at ITC alone. Nevertheless, this programme delivers exactly the same quality of graduates as KNUST and ITC by applying the same high scientific standards of both institutes. The degrees that I will hand over in a few moments are exactly the same ITC Master of Science degrees that are awarded in Enschede, the Netherlands. ITC is very proud of this important event, and I am very happy to be present here among all of you. It goes without saying that we hope that there will be many happy returns of occasions like this.

About 2 weeks ago, I also took part in a similar ceremony at ITC, in which 18 NRM students, who also started in September 2005, obtained their Master of Science degree, and early next month a third ceremony takes place in China where another 4 Master of Science candidates are expected to graduate. They are participating in a joint educational programme, bringing a total of 30 NRM Master of Science students this year alone. And another group of 75 students are already on their way to graduation in 2008.

Dear graduates, for about 1.5 years you went through an intensive course programme preparing you for and guiding you in your Master of Science research. Your last assessment that took place yesterday or the day before dealt explicitly with the outcome of this phase of your study. The results are really encouraging: a new generation of young scientists are now ready to chart their own course. The world in general and your country in particular, is in dire need of people like you. You are now equipped with new knowledge and skills, and able to tackle one of the many natural resource problems our earth is facing. The International Environment Agenda with conventions like the United Nations Framework Convention on

Climate Change, the Kyoto Protocol, the Clean Development Mechanism, the Convention on Biological Diversity, the Ramsar Convention on Wetlands, the Millennium Development Goals all illustrate problem areas that cannot be solved without the knowledge and skills, but also the dedication of people like you. Capacity building is right at the heart of ITC, and we take that very serious in our education, research and advisory services. Capacity building also means knowing what organizations, like those you are coming from, need. What are their tasks and commitments and what is the role geo-information and earth observation should play here? This is a question that is continuously evolving, and that will also put evolving demands on ITC's and KNUST's education and research programme. Joint educational programmes like GISNATUREM are particularly suited to answer these questions as they are physically close to these problems and the relevant organizations. To remain up-to-date ITC is currently reviewing its NRM curriculum to see where adjustments or even major changes are needed. It will be obvious that this takes place in close collaboration with experts from developing countries.

At the same time, we realize that a dedicated effort in capacity building is also necessary to contribute to the many international environmental commitments of all countries. I mentioned already several of the Conventions, to which also Ghana and Burkina Faso are signatory parties. The development of indicators and the training of staff will be important areas of our focus. We will have to pay even more attention to a question like: how to make all this as useful as possible to society. This will be very important because of the growing demands of society in general on the transparency of, and their participation in decision making, in which information plays such a crucial role.

But not only external demands will influence LTC's future and curriculum. Also you yourselves are important in this. Our continuous interaction with you, in the classroom, in practicals, in the field, and in the course of your research, whether directly or through email, helped us to remain sharp. We appreciate that you have completed the end-of-course evaluation forms. They will be taken into consideration to improve our programme to the extent possible.

Dear graduates, it has been a very busy time for you, up to and including the final thesis assessment. I can assure you it has also been a very busy time for the faculty and staff of ITC and KNUST to make it all possible, and I thank them all for this. Graduands, from now on you are LTC alumni.

The time to go has come. And that is good. Your family, your home organization, your country are all waiting for you. After coming back to your job you will notice that some things have changed. We hope that you can contribute to further change. Let that be change for the better, that is: to the benefit of all people in this world. In this sense I hope and expect to hear from you again. I wish you all a very happy day with family and friends, a safe trip home and a great future. I thank you for your attention.

Prof. Alfred Deheer Representative of Rector of ITC 22/03/07

SPEECH DELIVERED BY MR BERNARD KUMI-BOATENG, A GRADUAND STUDENT AT THE FIRST GRADUATION OF GISNATUREM HELD ON THE 22ND MARCH 2007 AT KNUST

The Vice-Chancellor Representative of the Rector, ITC Provosts Deans of Faculties Heads of Department Co-ordinators of GISNATUREM Invited Guests Colleague Graduands Ladies and Gentlemen

It is a delight to be given the opportunity to represent my colleagues to deliver a speech on their behalf. I am really grateful for this honour.

Today marks the end of a very difficult but fruitful journey we started here in Ghana through the Netherlands for a period of 18 months. Only one indelible mark is left in our hearts and minds and that is Ebenezer this is how far you have brought us. We are indeed grateful to the Lord for His grace which is sufficient for us.

Mr. Chairman, the Akan adage "Mekobi nso ya ma me anka masem ye ya" meaning, Though I was present, I was not given the opportunity to contribute is a painful ordeal or experience. Thus we will proceed to tell the story of these 18 months as we have seen through our very eyes.

Strengths of the Programme

- Commitment and competence of the tutors both at ITC, Netherlands and at KNUST, Ghana
- The interaction with other Nationals
- Educational Tours organized at ITC, Netherlands
- Exposure to other European countries other than the Netherlands
- The real world practical component of the programme using GIS and remote sensing
- Ability to cope with pressure
- Time Management
- Access to ITC database even in Ghana

Mr. Chairman, we will be doing a disservice to the programme if we fail to point out few observations:

- MSc rooms ie. Rooms dedicated purposely for the research phase
- Inadequate computers and softwares
- Internet facilities

Request

On behalf of the future students of GISNATUREM, we humbly appeal to the Rector of ITC, to kindly donate some computers for the smooth running of the programme.

Mr. Chairman, the ITC assessment regulations 2005 page 1, sections 1.1 to 1.5, stipulates that where the Master of Science course is taught in conjunction with a partner, the two institutes will agree upon new procedures. Such new procedures may take precedence over the regulations 2005 for the award of the Master of Science degree course. As of today, we do not know which regulation is being implemented by the management of the programme. We will therefore be glad if management of the programme will speed up the drafting of the procedures for the assessment of results.

In spite of the above observations, we believe that the programme has equipped us with enormous tools in our hands for the sustainability of the beautiful resources the creator has given us. Mr. Chairman, the experience has been great and we are glad to recommend this programme to all the final year undergraduates as well as stakeholders in the natural resource business.

Long Live Ghana! Long Live GISNATUREM!!

Thank you and God Bless you all.

Mr. Bernard Kumi-Boateng Representative of Graduands 23/03/07