

**UMaT Third Congregation Address Delivered by the Vice Chancellor
Professor D. Mireku-Gyimah**

Honourable Minister of Lands and Natural Resources representing His Excellency, the President of the Republic of Ghana

Honourable Ministers of State and Members of Parliament

Chairman and Members of the University Council

My Colleague Vice Chancellors of Sister Universities

Pro Vice Chancellor and Pro Vice Chancellors of Sister Universities

Registrar and Registrars of Sister Universities

Finance Officer and Finance Officers of Sister Universities

Chairman and Executive Secretary of the National Council for Tertiary Education

Chairman and Executive Secretary of the National Accreditation Board

Chief Executive of the Ghana Chamber of Mines

Chief Executive Officers of the Mining, Petroleum and Allied Industries

Members of the Diplomatic Corps

Omanhene and Nananom of Wassa Fiase Traditional Area

Omanhene and Nananom of Wassa Amenfi Traditional Area

Members of Convocation in *loco parentis*

Junior Members in *statu pupillari*

Alumni, Graduands and Parents

Priests and Imams

Members of the Press

Distinguished Invited Guests

Ladies and Gentlemen

It is gratifying to see all of you gathered here to participate in the 2nd Congregation of the University of Mines and Technology, affectionately called UMaT. Your presence is a manifestation of your interest in this young University and we are very grateful for this interest.

I particularly want to acknowledge the presence of the Minister of Lands and Natural Resources, Honourable Alhaji Collins Dauda who is representing His Excellency, the President of the Republic of Ghana, and whom we are very privileged to have as our special Guest of Honour.

I would also like to acknowledge the presence of the Omanhene of Wassa Fiase Traditional Area, Osagyefo Kwamena Enimil VI, and the Omanhene of Wassa Amenfi Traditional Area, Kasapreko Kwame Bassayin III who have shown extremely keen interest in the development of this University.

The presence of the following colleague Vice Chancellors gives me a sense of warm companionship. They are: The Vice Chancellor of the University of Ghana, Professor Clifford Nii Boye Tagoe; The Vice Chancellor of the Kwame Nkrumah University of Science and Technology, Professor Kwasi Kwafo Adarkwa; The Vice Chancellor of the University of Cape Coast, Professor Naana Jane Opoku-Agyemang; The Vice Chancellor of the University of Education, Winneba, Professor Akwasi Ameyaw-Asabere; and

- The Vice Chancellor of the University for

Development Studies, Professor Haruna Yakubu

I would also like to acknowledge the presence of the following distinguished academics who have travelled from Nigeria, Australia, Germany and USA purposefully to give us support and to strengthen the international collaboration between their respective Universities and this University. They are:

- Professor Adebisi Balogun, the Vice Chancellor of the Federal University of Technology, Akure, Nigeria;

- Professor Jonas Addai-Mensah from the University of South Australia;

- Professor Peter Jurg Uebel from the Technical University of Berlin, Germany;

- Professor Sambo Siekpe from the Tennessee State University, Nashville, USA.

On behalf of the University, and on my own behalf, I welcome all of you present here and I thank you for finding time, despite your heavy schedules of work, to come to participate in the 2nd Congregation of this University.

Mr Chairman, my comprehensive report on the University and its activities is very long and it could be boring to listen to all of it at this ceremony. In order to save time and to spare everybody the boredom, the full report has been bound by the Audio-Visual Unit of the University into a book entitled, “The Vice Chancellor’s Report” which everybody can read in the comfort of his or her home. There are also two booklets entitled, “UMaT At a Glance” and “Basic Statistics” which together give a summary of the important information about the University. These three documents are available to the public. Anyone who has not got copies of the documents is encouraged to get copies from a desk at the forecourt of this auditorium at negligible cost. Alternatively, the documents can be assessed at the University’s website: www.umat.edu.gh.

However, because this is the 2nd Congregation of the University and so it may be the first time some of you have come here to know about the University, I feel obliged to highlight the following three points which are note-worthy and would be of interest to the general public:

- The genesis of this University and its role in national development

- The current focus and the future plans of the University

- Our graduands, their worth and responsibility.

Mr Chairman, on the genesis of this University and its role in national development, the following are the facts. This institution started as the Tarkwa Technical Institute in 1952 but was officially inaugurated in October 1953 by Sir Charles Arden Clarke, the Governor of the then Gold Coast. In 1960, it metamorphosed through the initiative of the Ghana Chamber of Mines to become the Tarkwa School of Mines. In 1976, it was affiliated to the Kwame Nkrumah University of Science and Technology (KNUST) as a faculty of that University and given the name KNUST School of Mines. In 2001, it was re-organised to become the Western University College.

Then on 11th November, 2004, at exactly 11.30 GMT, this institution was by Act of Parliament (Act 677) established as the full-fledged University of Mines and Technology and empowered by law to award its own certificates, diplomas and degrees. Until this date, all fresh students of this institution were matriculated and all graduands were graduated by KNUST, our mother university.

This explains why, in spite of the fact that this institution has been producing graduates since 1976, we are only now having the 2nd Congregation.

Let me at this juncture, while the genesis of the University is still fresh in our minds, share with you the philosophy behind our crest. The University's crest epitomizes the pursuit of knowledge, truth and excellence in mining and related engineering disciplines through the acquisition of sound theory (symbolized by the book) and good practice (symbolized by the geological hammer and the cog wheel). The result is a fulfilling wisdom that radiates (like the rising sun) in the lives of all those who imbibe this wisdom from the University.

The sacrifice to protect the virtue of the University is galvanized by the blood and toil of the founders of the University (depicted by the thin red line around the shield of strength). The University's primary colour (selected by voting) is green and symbolizes her rich natural environment. Our solid patriotism is reflected in the red, yellow, green and black colours found in the national flag. The golden ribbon on which the crest sits symbolizes the University's wealth and testifies her location within the prominent gold belt of Ghana.

Finally, the strict proportionality between the symbols and the strong intensity of the colours symbolize discipline and our admiration of the beauty of God's geometric creation of the universe.

Mr. Chairman, the mission of the University is to:

- Provide higher education with special reference to mining and related disciplines through effective teaching and learning;
- Promote knowledge through active research and publication of research outcomes; and
- Provide professional services to the national and international communities through extension activities and constructive advocacy.

We can summarise this mission to be a mandate to train professionals capable of exploring for and extracting minerals, oil and gas from the earth's crust and processing them into useful products for the development of the country.

If we take into consideration the fact that this University is the only University of Mines and Technology in the West African sub-region, then it becomes clear that our mandate goes beyond our country to the West African sub-region and to the whole of Africa.

Consequently, we have set our vision to become a Centre of Excellence in Ghana and Africa for conducting cutting-edge research and for producing world-class professionals for the mining, petroleum and related industries.

Our strategic location on one of the prominent gold belts in Ghana with a fascinating geological setting, the proximity of operating mining companies and the new oil find and our dedicated capable staff combine to give us a unique strength to give our students practical engineering training. No wonder, for a third of a century, we have been training engineers of proven ability for the mining and related industries in Ghana and abroad.

Mr. Chairman, the importance of this University in national development cannot be overemphasized. It is well established that development and civilization are directly dependant on the products of mining. As was clearly illustrated by the Chief Executive Officer of the Ghana Chamber of Mines at the inauguration of the Chamber's 80th Anniversary, every human activity uses tools which are products of mining. We build our houses, make our farms, construct our roads, dams and factories using equipment made of metals which are products of mining.

We travel by road in vehicles, by sea in boats and ships and by air in airplanes, all of which are made of metals which are products of mining. Our medical officers diagnose our diseases and operate on us using sophisticated equipment made of metals which are products of mining. We prepare our food, medicines, cosmetics, detergents and everything using tools and raw materials made of the products of mining. The conclusion is that without mining there can be no development. This is the main reason why any nation that has mineral resources is considered to be potentially rich.

Ghana is therefore potentially rich because she is endowed with abundant mineral resources. So far, we have been exploiting mainly gold, diamond, bauxite and manganese and to some limited extent salt, sand and gravel. But we also have iron, cassiterite, asbestos, limestone, marble, andalusite, barite, mica, talc, silica, garnet, feldspar, sandstone, beryl, columbite, lithium, monazite, copper and kaoline and we have oil and gas all of which are yet to be exploited.

Our challenge is how to exploit our mineral resources responsibly and that is how to use the correct mining and processing methods to exploit these minerals in an environmentally friendly manner so that we can prevent or minimize environmental damage and maximize the socio-economic benefits of mining, so that we can use the products of mining to develop our country into the middle income nation that we all dream about. The resolution of this challenge is clearly subsumed in the mandate of this University, a mandate which underscores its role in national development.

The direct logical inference is that if we need to develop our country to become an industrialised nation, then we need to develop this University and we need to resource it amply so that it can carry out its mandate effectively. As part of our activities to address this challenge of exploiting our mineral resources responsibly, we have established a biennial UMaT International Mining and Mineral Conference the first of which will take place from 4th to 7th August, 2010. Over 100 professionals and academics from all over the world will converge at this University to share their views and experiences on innovations in mining and mineral technology to address this challenge.

Mr. Chairman, on the second point, that is the current status and the future plans of the University, the following are the facts. Currently, the University has only two academic faculties, the Faculty of Mineral Resources Technology and the Faculty of Engineering. Under the Faculty of Mineral Resources Technology, we have five academic departments all of which offer 4-year Bachelor of Science degree programmes. These are the Department of Geomatic Engineering, Department of Geological Engineering, Department of Mining Engineering, Department of Mineral Engineering and the new Department of Petroleum Engineering. Under the Faculty of Engineering, we have four academic departments of all which also offer 4-year Bachelor of Science degree programmes.

These are the Department of Mechanical Engineering, Department of Electrical and Electronic Engineering, Department of Mathematics and the new Department of Computer Science and Engineering. We also have the Languages Section that operates under the Faculty of Mineral Resources Technology. And we have the School of Postgraduate Studies which coordinates all postgraduate programmes in the University. As can be seen, everything we do in this University is engineering. The Registry with its units, the Finance Office with its units, the Library, the Clinic, the Building and Maintenance Unit, the Transport Unit, the UMaT Basic School, the Security Unit and the Hall Council constitute part of the University's operational setup.

Altogether, we have 1 453 students out of which 150 are postgraduates; we have 73 academic staff made up of 3 Professors, 8 Associate Professors, 12 Senior Lecturers, 39 Lecturers, and 11 Assistant Lecturers, and we have 264 supporting staff out of which 12 are Senior Members.

Of the numerous researches being carried out in the University, I would like to note that in the year under review, Prof Elias Asiam and Mrs Victoria Frimpong completed their studies on acid mine drainage and prescribed measures for its control, Prof Newton Amegbey completed setting blasting standards that would prevent damage to buildings and infrastructural facilities, Prof. Dzigbodi-Adjimah and Mr Daniel Asamoah published their findings on the geology of gold deposits of the Prestea gold belt, Dr. Anthony Simons and Mr Stephen Adzimah completed their design of a garbage sorting machine and Mr John Kojo Annan and Mr Lawrence Gyansa completed their studies of the fatigue performance of 1045 steel.

In another development, Miss Augustina Abaidoo, a Senior Administrative Assistant received the national award for the TUC best worker of the year. This shows that our supporting staff are also working hard.

Our current focus is to get well-equipped laboratories, workshops, lecture halls, and student hostels so that our students can learn properly. We are also focused on the construction of our road network and staff houses, the improvement of ICT facilities and the provision of fire protection system.

Our medium-term focus is guided by our obligation and moral duty to provide quality education and ensure cost-effective management of the University. At the moment, the ratio of students to academic staff is 20:1 and the ratio of academic staff to supporting staff is 1:4.

My studies on the current operational modalities of the University show that the supporting workforce of 264 is about what is required to operate effectively, whether we decrease or increase the student number. In order to benefit from the economies of scale, therefore, it is only logical that we keep the supporting workforce number at the current 264 and increase the number of students and academic staff. The best way to do this is to increase the number of academic staff from the current 73 to 264 to equal the number of supporting staff. Then the number of students can easily be determined since the recommended ratio of engineering students to academic staff is known to be 18:1. A simple arithmetic gives the student number to be about 5 000.

What I am simply saying, Mr. Chairman, is that in order to benefit from the economies of scale and to satisfy the norms for quality assurance, we need to be increasing the number of academic staff from the current 73 to 264 as the student number increases from the current 1 453 to 5 000 while we keep the number of supporting staff at the current 264.

In the medium term, therefore, we are focused on the provision of more lecture halls, laboratories and student hostels that can accommodate 5 000 students and more staff houses and offices that can accommodate 264 academic staff and 264 supporting staff. This will also permit us to mount other engineering programmes which we consider vital for national development and which are stipulated in our strategic plan SKPLAN2K14. We are determined to mount programmes to train engineers in civil engineering and alternative energy engineering such as wind energy engineering, solar energy engineering and biomass energy engineering.

A question that keeps coming to us is whether we have the land for expansion. I think this is the time to bring to the notice of the general public that the Wassasi Traditional Council has donated a 26-square kilometer land for the development of the new campus of the University.

Having secured such vast land, the focus of this University in the long term is to build the new campus. Indeed, let me say that the physical model of the new campus has already been designed by the renowned Architect, Mr. Bernard Ekow Sam, a past member of the University Council. Having visited all the universities in Ghana and several universities abroad and having studied the land use and architectural shortcomings of these universities, Mr. Ekow Sam has designed the University to be one of the best in the world.

It is now clear that this University has the people, the industry, the land and all that are required, apart from financial resources, to be developed into a formidable University that can support the science and technology agenda of this country.

At this juncture, I would like to thank our benefactors who made significant contributions towards the development of this University this year.

They include the following:

- Newmont Ghana Gold Limited donated \$500,000 for the installation of fire suppression and security surveillance system (1st phase);
- Emerson Process Management of USA donated the Emerson Plant Web Cruiser worth \$500,000. This plant is a simulator of petroleum extraction processes;
- Ghana Manganese Company contributed \$200,000 towards the construction of a students' hostel;
- Goldfields Ghana Limited contributed \$100,000 towards the refurbishment of the geological engineering laboratory;
- Ghana Chamber of Mines donated \$25,000 to sponsor the Professorial Chair of Environmental Studies; and
- Progress in Education, Ghana donated mineral processing equipment worth \$20,000.

On behalf of the University, I wish to thank them and all the other benefactors who continue to support the University. It is also gratifying to note that last year at our 1st Congregation held on 25th July, 2009, His Excellency, the President of the Republic of Ghana, in his speech read on his behalf by the Honourable Minister of Education, announced a GH¢100 million package to be sourced from the Minerals Development Fund for the development of this University. We have

already submitted our disbursement plan, as requested, through the Minister of Education to his Excellency's Office and in fact awarded some projects to contractors.

Honourable Minister of Lands and Natural Resources, we would humbly request that you convey our sincerest gratitude to His Excellency, the President of the Republic of Ghana. And now since the source of the money is the Minerals Development Fund which is directly under your Ministry I am using this platform to make a special appeal to you to pay for certificates of the projects as and when they arrive at your Ministry. In the hope that you will quickly approve the certificates for payment, I wish to thank you sincerely.

Mr. Chairman, on my last point – that is our graduands, their worth and responsibility, the following are the facts. On this occasion of the 2nd Congregation of the University, a total of 238 students are graduating. Out of these, 20 are to be awarded Master of Science or Master of Philosophy degrees in their respective engineering programmes of study. The remaining 218 are to be awarded Bachelor of Science degrees in their respective engineering programmes of study, with 20 of them in the first class division.

The students who are graduating today from the University are a special breed of engineers. These are graduands who had to forgo the niceties of city life and the fantasy of funny clothes that students are so fond of these days. These are graduands who had to acquire their own engineering drawing boards, protective clothing and basic tools like geological hammers, lenses, avometers, measuring tapes, test tubes and reagents for their studies, these are graduands who had to defy the notorious Tarkwa rains to do their field work, and these are graduands who had to pay for numerous field trips to get exposure to their professional work. Apart from their respective hardcore engineering disciplines, they all had to learn the law of contract and tort, business entrepreneurship, economic development planning, public relations, communication skills and computer applications. Contrary to the general opinion that graduates of these days are unable to express themselves, these graduands have good communication skills and when it comes to computers they are simply wizards and witches.

By all standards, these graduands are good engineers, well prepared to enter the world of work to start their careers. No wonder, as happens each year, employers are impatiently waiting to whisk them away. Indeed within the last 2 months, a number of companies have come into the University, trying to get some of the graduands into their employ. Two days ago, I received an e-mail message from AngloGold

Ashanti, Obuasi Mine which reads as follows:

“Dear Vice Chancellor, further to our conversation, we now write to inform you that four officers shall be visiting the University on 23rd July, 2010 and stay on to attend your Congregation. The officers are:

- Management Services Manager, Mr Joseph Amponsah
- Training & Development Manager, Mr Richard Kwakye-Nuamah
- Mining Training Superintendent, Mr Samuel Opare-Baido
- Staffing Manager, Mr Meshack Baah

The objective of the visit is to interact with the graduands on the employment opportunities at the Obuasi Mine of AngloGold Ashanti and explore the possibility of winning quite a number of them to do their National Service with us in the hope that after the service they would accept our offer of employment”.

Now isn't this message pleasant? In fact the message became even more pleasant to me when I recognized

that all the officers are alumni of this University.

In these times when we hear about unemployment among graduates, I am proud to be the Vice Chancellor of a University whose graduates find employment readily.

And now, to our dear graduands. You have satisfied