MINISTRY
COMMUNICATIONS AND DIGITAL TECHNOLOGIES
REPUBLIC OF SOUTH AFRICA

**ADDRESS BY THE MINISTER OF COMMUNICATIONS AND DIGITAL TECHNOLOGIES
MS STELLA NDABENI ABRAHAMS, MP, DURING THE DATA SCIENCE CERTIFICATES
HANDOVER CEREMONY, 15 SEPTEMBER 2020**

**Minister of Higher Education, Science and Innovation, Dr. Blade Nzimande
Chairperson of MICT SETA, Mr. Siphiwe Thobela
CEO of MICT SETA, Mr. Mdu Zakwe
Acting DG of the Department of Communications and Digital Technologies, Ms. Nomvuyiso
Batyi
Chairpersons of State Owned Entities
Captains of the ICT industry
Data Science Leaners
Ladies and Gentlemen**

It is truly an honour and a privilege to be addressing the Data Science Class of 2020. I know the road to get here wasn't always easy for all of us and particularly you the graduates. This is because Data Science is a discipline that requires the skills of a polymath with strengths in conceptually challenging subjects in the fields of Mathematical Statistics and Computer Science. Furthermore, many of you are coming from disadvantaged background with a lot of socio economic challenges. As a result of overcoming these challenges, this Data Science course will be the key that opens doors to many sectors wherein Data Science skills are in high demand. According to the World Economic Forum report entitled "*Jobs of Tomorrow Mapping Opportunity in the New Economy*", Data Scientist are one of the most demanded professionals in this digital era. This is due to the vast applicability of Data Science skills. Data science is being applied in fields such as medicine, finance, logistics, aviation, automobile, manufacturing and many other industries. What I find encouraging is that in you I see committed young people who have pledged to work hard against all odds in order to change their lives and build a better South Africa for all. What is nobler than this?

Program Director

Today is the culmination of a great partnership between my department and the MICT SETA that has been built over years in the area of skills development. This relationship has made strides in developing South Africa into an Information and Communications Technology (ICT) knowledge-based society, in keeping with the world trends. The aim being to encourage the sector to invest in skills development so that more people can contribute in economic growth of the country and therefore create employment. The current partnership with MICT SETA emanates from budget vote commitment we made in 2019-20 that of training 1000 unemployed youth in different 4IR related skills as the country enters the digital era. Amongst those being the success of the Data Science skills development program we are celebrating today.

The task of a Data Scientist includes converting data into meaningful information. Daniel Keys Moran aptly said: "You can have data without information, but you cannot have information without data". The process of moving from data to information includes (but it is not limited to) crunching numbers. In the words of Ronald Coase: "If you torture the data long enough, it will confess." As Data scientists, you have been equipped with the requisite skills to torture the data, so that the data can eventually confess the truth; the truth about our ailing economy, truth about our dwindling manufacturing industry, truth about our agricultural sector potential, and the truth about all the other important sectors of our economy. It is the discovery of these data-based truths and insights that will enable organizations to formulate data-driven policies that will ultimately improve service delivery in our country and address the needs of our citizens. Today I am thrilled to declare that we are unleashing to the industry and indeed to the SA society 135 potential data scientists who come across 4 provinces. 52 from Gauteng province they are mostly present here and those who are joining us virtually from the Eastern Cape are 24, from KZN are 35 and from Limpopo they are 23.

The fourth industrial revolution is here, and it is changing the way we live, work and learn. A decade ago, unmanned aircraft and self-driving cars were a figment of the imagination. Today, Data Scientists in the automobile industry are building deep learning algorithms in order to ensure that we have self-driving cars that can recognize the size, speed and direction of any surround objects. This is quite an intricate process and research indicates that one self-driving vehicle can generate data of around 1GB in a second.

The Presidential Commission on 4IR recently made their recommendations to President Ramaphosa on the adoption of 4IR technologies to improve the upward trajectory of our economy and country. Critical amongst those recommendations is to build human capacity in the areas of 4IR, including data science. This is exactly what we aimed to do with this pilot data science programme and other 4IR programmes.

What makes data science a powerful field is its ability to predict future events. In a branch of statistics known as extreme value theory, data science techniques are applied in order to predict the most unusual events and natural disasters (Imagine a world that was able to predict the Covid-19 pandemic). The country is in need of your Data Science skills to harness the power of data and come up with predictive models that will enable our departments to mitigate risks, reduce costs, increase revenue, and optimize limited resources.

Ladies and gentlemen, dear graduands remember that with great privilege comes great responsibility. In your field of data science, there is also the moral imperative of maintaining good ethics and being ethically responsible and accountable. The nature of data allows the holder of the information to interpret and report in a manner that is naturally biased. So, just as your parents taught you to cross the road – always look both ways before you cross. Likewise, when interpreting data always look both ways. Look at the impact that data has on people and societal problems and always ensure that whatever you create is for the benefit of ALL and not just the selected few.

Beyond the Data Science skills that you have acquired, it is essential that you become well-versed in the business operations and processes of the industry that you will work in.

In conclusion:

This graduation marks the beginning of another journey of learning. It is in that journey that you will distinguish yourselves by choosing between being knowledge workers who served humanity or being educated individuals whose qualifications are used to ridicule the less privileged. Remember education for its own sake is but pale and dry. Education finds its true meaning when it is used for the betterment of human life. Such is the magnitude of responsibility cast upon you as you make your choices traversing this journey of life.

Once more congratulations, Class of 2020.

I thank you