**Reversing Africa’s De-industrialisation with 3D Printing Technology**

**Legal, Regulatory and Policy Issues**

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Africa’s position as a preferred destination for low wage jobs migrating from Asia is now being undermined by the advent of 3D printing technology that would do manufacturing at a negligible cost - ‘zero- margin cost’. ‘Re-shoring’ and ‘in-sourcing’ are the latest trends in manufacturing that are clearly sidelining Africa. These developments are to further aggravate the challenges of the manufacturing sector in Africa that has seen continuous shrinking despite Africa’s remarkable growth in recent times. The comparative advantage of low wages that Africa was banking on to attract jobs is rapidly losing its allure due to the comparative advantage defying (CAD) technologies like 3D printing. Africa needs to embrace 3D printing technology and the new modes of manufacturing that it is spawning. The exploitation of cheap labour can no longer serve as the comparative advantage in the face of the relatively cheap yet highly efficient technology that is radically overhauling the manufacturing sector around the globe. Africa needs to get the policy, legal and regulatory environment right in order to harness the technology for its benefit and pre-empt the disruptive impacts on its economy.

**Profile**

Dr Hailemichael Teshome Demissie is Associate Professor at the School of Law of the University of Gondar. Previously he was a senior research fellow at the Nairobi based intergovernmental think-tank, African Centre for Technology Studies (ACTS). He has spent research time in Pretoria, South Africa, as a research fellow at the Institute for Economic Research on Innovation, Tshwane University of Technology. His current research focuses on the law and technology interface and on emerging technologies and their impact on sustainable development. He has successfully led the coordination of international conferences on 3D Printing Technology and African Development held in Nairobi, Kenya in 2016 and in Gondar, Ethiopia in 2017. ([www.acts-net.org](http://www.acts-net.org) )

Dr Hailemichael has published in prestigious peer-reviewed journals and edited volumes. His works got applauding reviews and are cited by established ‘regulation of technology’ and ‘law and technology’ scholars. His latest publication, an edited volume on nanotechnology and sustainable development in Africa with contributions from scholars in Ethiopia, Kenya, US, UK, Canada, the Netherlands and South Africa will be out in the summer of 2017. He has given papers at various international events including in the UK (European Consortium on Political Research (ECPR)), Austria (UNIDO), China and Turkey (GLOBELICS), South Africa (DST, AISA), and Mozambique (Africalics)

Prior to his postgraduate studies, Dr Hailemichael was serving as judge of the High Court of Addis Ababa, and an appeals judge of the Municipal Appellate Court of the Addis Ababa City Government following a brief hiatus he spent as a member of the team of advisors in the office of the Mayor of Addis Ababa.

He has contributed to the debate on judicial and legal reform in Ethiopia: his papers presented at judicial conferences and other events were widely discussed. From 2002 to 2004, he was a member of the national team for the training of trainers on human rights in the administration of justice - a project of the Federal Ministry of Justice funded by the government of Norway.

Dr Hailemichael obtained his LLB from Addis Ababa University in 1991, his LLM with distinction from the University of Warwick and PhD from King’s College London.