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INDIA STRENGTHENS TIES WITH SOUTH KOREA IN CYBER SECURITY

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India and South Korea signed a pack of nine agreements on January 16, 2014 in various fields including an agreement on Cyber Security.ⁱ During the four day visit of South Korean President Park Geun-hye to India, the two countries have used the opportunity to enhance bilateral relations to strengthen their ties. The various agreements signed between the two countries are as follows:

S. No.	Agreement Signed on	Signed by	
		Indian Side	South Korean Side
01	Protection of classified military information	Defence Minister A.K. Antony	Foreign Minister Un Byung-se
02	Cooperation in the Peaceful Use of Outer Space	Dr. K Radhakrishnan, Chairman, Indian Space Research Organization (ISRO)	Kim Seung-Jo, president of the Korea Aerospace Research Institute
03	MoU on Joint Applied Research and Development Programme in Science and Technology	Salman Khurshid, External Affairs Minister	Choi Mun-Kee, Minister, Science, ICT and Future Planning
04	CulturalExchangeProgramme 2014-2017	Ravindra Singh, Secretary, Ministry	Dr. Lee Joon- Gyu, Korean Ambassador

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		of Culture	
05	MoU on the Establishment of Nalanda University	Vishnu Prakash, Ambassador of India to RoK	Dr. Lee Joon- Gyu, Korean Ambassador
06	CooperationbetweenDoordarshan (DD) and KoreaInternationalBroadcastingFoundation (Arirang Tv)	Tripurari Sharan, Director General, Doordarshan	Shon Jie-ae, CEO, Arirang TV
07	Cooperation in the Field OfInformationAndCommunications Technology	Kapil Sibal, Minister of Communications and IT	Mr. Choi Mun-Kee, Minister, Science, ICT and Future Planning
08	MoU on Cooperation and Information Exchange for Development of an Arrangement for Mutual Recognition of Certifying Authorities	T.A. Khan, Controller of Certifying Authorities (CCa)	Jin-Soo Lim, Vice Head of Korea Certification Authority Central, Korea Internet and Security Agency
09	MoU on Cooperation in the Field of Cyber Security	Gulshan Rai, DG, Computer Emergency Response Team (CERT-In)	Kijoo Lee, President, Of Korea Internet and Security Agency (KISA)

Source: "India, South Korea sign nine agreements to boost bilateral ties", Business Standard, January 16, 2014. http://www.business-standard.com/article/news-ani/india-south-korea-sign-nine-agreements-to-boost-bilateral-ties-114011600797 1.html Accessed on January 18, 2014.

The MoU on Cooperation in the Field of Cyber Security signed between the two countries is a crucial agreement for India as South Korea is the second country with which India has signed a bilateral agreement on Cyber Security. India's first Cyber Security agreement was signed with US on July 19, 2011 under which the two countries agreed to cooperate closer and to exchange timely information between the organizations of their respective governments responsible for cyber security.ⁱⁱ

South Korea's Cyber Security Environment

South Korea which is one of the most wired countries in the world is also one the most affected countries in terms of cyber security. It faces threats in its cyber networks from North Korea and its ally China and has experienced a series of attacks on its banking, broadcasting and other critical networks in the past. In 2009 South Korea faced its first major cyber attack on various important networks which includes the website of the office of the President, the Defence Ministry, the website of the National Assembly, Shinhan Bank, Korea Exchange Bank and Naver which is South Korea/Republic of Korea (ROK)'s top internet portal.ⁱⁱⁱ

Again in 2011, Distributed Denial of Service (DDOS) attacks were conducted on various networks of ROK including various Ministries of the Government, the Military Headquarters,

the National Assembly, Ministry of National Defence, and National Police Agency and in major banking sectors. Apart from this, malwares were also injected into the networks organizations like Financial Services belonging to Agricultural Commission and National Cooperative Federation whose servers had to be halted for a certain period of time.^{iv} Recently in June 2013, during the anniversary of the Korean War, another series of cyber attacks targeted President's office, National Intelligence

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Service, and the ruling party. Personal information of almost 100,000 people was leaked together with data on U.S. and Korean soldiers.^v

The cyber security authorities of ROK blame the North Korean cyber experts and also China for masterminding and conducting a series of cyber attacks in its country. ROK's stand is also being supported by its biggest ally US in blaming China for conducting all the cyber attacks on ROK and on US itself. Moreover, the offensive cyber capabilities of North Korea are always questionable, as they always lag behind in technology and all their aid comes from China.

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What can India gain from this agreement?

On India's part, cyber security is a field which is gaining a rapid awareness and a steady momentum in development especially in the past two years. With a National Cyber Security Policy ready in hand and with plans to increase its number of cyber security experts, India has expressed its will to fortify its cyber networks in the years to come. Nevertheless, India is also constantly harassed by cyber attacks from various sources, especially from Pakistan and China. For instance, on March 2013, the Official website of Defence Research and Development Organisation was defaced by the hackers from China and it was also reported that many sensitive data was stolen.

Therefore, both South Korea and India face a common enemy, China, in their respective cyber networks. Both the countries have plans to expand their number of cyber security experts in the years to come. More precisely India wants to have 500,000^{vi} personnel and South Korea wants to have 5,000^{vii} cyber security personnel to safeguard their networks. By agreeing to launch a 'Cyber Affairs Dialogue' the two countries' cyber experts will have a regular interaction amongst themselves, which will enhance the information and knowledge sharing between the two countries in the field of cyber security. Also, India can send its cyber security experts for training in South Korea to gain varied exposure in the subject. The Indian cyber security organizations like Computer Emergency Response Team (CERT-in) and National Technical Research Organisation (NTRO) can work with its Korean counterparts like National Cyber Security Centre (NCSC) and Korea Internet and Security Agency to develop early warning systems and also to develop cyber resilience.

(Disclaimer: The views and opinions expressed in this article are those of the author and do not necessarily reflect the position of the Centre for Air Power Studies CAPS)

Endnotes:

ⁱ "India, South Korea to boost ties in cyber security, defence", *The Indian Express*, January 17, 2014. <u>http://indianexpress.com/article/india/india-others/india-south-korea-to-boost-ties-in-cyber-security-defence/</u>. Accessed on January 18, 2014.

ⁱⁱ "United States and India Sign Cybersecurity Agreement", Official website of the Department of Homeland Security, July 19, 2011. <u>http://www.dhs.gov/news/2011/07/19/united-states-and-india-sign-cybersecurity-agreement</u>. Accessed on January 18, 2014.



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ⁱⁱⁱ "Cyber attackers target South Korea and US", *The Guardian*, July 8, 2009. <u>http://www.theguardian.com/world/2009/jul/08/south-korea-cyber-attack</u>. Accessed on January 18, 2014.

^{iv} "South Korea hit by cyber attacks", *BBC*, March 4, 2011. <u>http://www.bbc.co.uk/news/technology-12646052</u>. Accessed on January 18, 2014.

v "Cyber Security in South Korea: The Threat Within", *The Diplomat*, August 19, 2013. <u>http://thediplomat.com/2013/08/cyber-security-in-south-korea-the-threat-within/?allpages=yes</u>. Accessed on January 18, 2014.

^{vi} "National Cyber Security Policy", Department of Electronic and Information Technology, File No. 2(35)/2011-CERT-IN, Ministry of Communication and Information Technology, Government of India, July 2, 2013.

vⁱⁱ "South Korea to Train 5,000 Cybersecurity Experts", *The Wall Street Journal*, July 4, 2013. <u>http://blogs.wsj.com/korearealtime/2013/07/04/south-korea-plans-a-big-boost-to-cybersecurity-staffing/</u>. Accessed on January 18, 2014.