

**GOVERNMENT OF INDIA  
MINISTRY OF SCIENCE AND TECHNOLOGY  
DEPARTMENT OF SCIENCE AND TECHNOLOGY  
LOK SABHA  
UNSTARRED QUESTION NO.4194  
TO BE ANSWERED ON 21/3/2018**

**NEXT GENERATION TECHNOLOGY LOOP**

†4194. SHRI JANARDAN MISHRA:

**Will the Minister of SCIENCE AND TECHNOLOGY विज्ञान और प्रौद्योगिकी मंत्री**

**be pleased to state:**

- (a) whether Indian Institute of Science Bengaluru has developed next generation technology loop;**
- (b) if so, the details thereof; and**
- (c) the area in which the said technology is likely to be utilised?**

**ANSWER**

**MINISTER OF SCIENCE AND TECHNOLOGY, MINISTER OF EARTH SCIENCES AND  
MINISTER OF ENVIRONMENT, FOREST AND CLIMATE CHANGE**

**(DR. HARSH VARDHAN)**

**विज्ञान और प्रौद्योगिकी मंत्री, पृथ्वी विज्ञान मंत्री और पर्यावरण, वन एवं जलवायु परिवर्तन मंत्री**

**(डा. हर्ष वर्धन)**

**(a) & (b): Yes, Madam. The loop has been designed to generate the necessary data for future development of super critical carbon dioxide based power plant utilizing both conventional and renewable energy sources and to develop critical components such as the turbine, compressor and heat exchangers that can work at the desired pressure and temperature ranges using appropriate materials.**

**(c) The technology is for next generation efficient, compact water less super critical carbon di-oxide brayton cycle power plants.**

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