

Dr. Anuj K Chandel, an eminent bio-fuel researcher from University of São Paulo, Brazil visited Central University of Jammu on 23rd May, 2017



Dr. Anuj K Chandel, Associate Professor in the University of São Paulo, Brazil was invited by Prof. N.K. Tripathi, Head, Centre for Molecular Biology, Central University of Jammu to interact with the faculty members of different science departments. The ever increasing energy demand, high energy costs, predicted scarcity of fossil fuel, and their severe implication on environment has led the scientific community to think of alternative fuel. Crop residues are primary feedstock for biofuel production in near future. Dr. Chandel presented his

work on next generation bio-ethanol production and shared his experiences while working as a scientist in Centro de Tecnologia Canavieira (CTC), Piracicaba, Brazil, a world leading company in ethanol biofuel production. He briefed the faculty members with his research work and discussed the possibility of collaboration in the field of D-Xylitol, lignocellulose degradation, extremophiles, green chemistry and sustainable biofuel production. He stressed upon the fact that although both India and Brazil are agrarian countries, however, India is far behind in using agriculture waste for the bio-fuel production. The integration of agro-energy crops and advance technologies offers the potential for the development of cost-effective substrate for sustainable biofuel production. Dr. Chandel also shared the current scenario to develop renewable and sustainable biofuel from lignocellulosic polysaccharides derived from plant biomass, which are renewable and in near future can replace petroleum products. He explained that in Indian context that there is a lot to be done in the biomass collection followed by first and second generation biofuel production using cellulosic ethanol from sugarcane biomass and other agriculture waste. Being a leading country in biofuel production, Indian can benefit a lot from Brazil through collaborative projects in the area of biofuel production from agriculture waste. The various techniques that include protein engineering, fermentation technology, enzyme technology, biochemical engineering, genome sequencing, bioinformatics, and synthetic biology are the potential areas of collaboration between CUJ and University of São Paulo, Brazil in order to achieve the targeted biofuel production.