

Class Work: Discussion and Peer Assessment

10 teams of 4/5 students are given the following topic:

Discuss the usefulness of automation in the following sectors:

Team 1: banking sector

Shreya Rajpal, Ashish Singhal, Shobhit Jain, Ishani Srivastava, Tanmay Pradhan

- algorithmic trading reduces the cost of trading.
- valuation of investment and companies can be performed easily.
- personal banking , online trading can be done anywhere, no need to visit bank.
- credit card, debit card eliminate paper money use.
- Disadvantages are credit card fraud and inability of systems to handle critical trading issues.

Team 2: healthcare sector

Shubham Yadav, Varun Surapaneni, Jagdeep, Ankit saha, Rohit Kataria

- Faster diagnosis, precise surgery, tackle emergency.
- Simulation of reaction in R&D of medicine, reduce time to serve.
- Prosthetic limbs, electronic medical record, personalised health care, integrated insurance system.
- Disadvantages are Robot can't replace human mind and can't do simple surgery, effect on Privacy & patient.

Team 3: entertainment sector

Karishma Meena, Pulak Mehta, Rajat Garg, Pihu Yadav

- Cgi & simulation become possible, easier editing, Global scale entertainment.
- mass production of computer games, fixed lighting & audio.
- Amusement park have pre fit ride.
- Disadvantages are TV shows & movies can be leaked, easier infringement, adequate compensation to artist, old communities are lost.

Team 4: education sector

Sankalp Rajoria, Akash Kumar, Nishant kumar Nayak, Niranjana meena

- Paperless admission, document management system, simulated training for teacher.

- Educational institute goes through student enrolment programmes , student application workflows, application for scholarship so that process maker should implemented.
- Fast, efficient & accurate paperless admission.

Team 5: hospitality sector

Vipin Yadav, Karthik P, Ashutosh, Sairam K, K Shanu

- Applications are Data collection/ database management, housekeeping/room cleaning, massage parlour/ spa, costumer care/IVRS USSD, automatic ticket method.
- Drawbacks are lack of personal touch in service, expensive, culture/ panache is killed , interdependency of businesses, privacy hacking issues.
- Examples are automated food serving in dinner, terminator robots for security.

Team 6: transport (bus/taxi/train) sector

Ashish Kumar, Adwait Singhai, Bharat Patidar, Rishabh Jain, Hanish

- Freight system in manufacturing units, inaccessible terrains don't require human driver, escalator & automated guided vehicle reduce transportation time & labour time.
- Advancing on BRTS/railway system by automatic bus, automatic delivery system, gear shift.
- Drawbacks are global warming, pollution, increasing deceases.
- If failure occurs then work completely stops.

Team 7: publishing (books) sector

Shidharth Phogat, Akshay Nasa , Madusudhanan R, Nikhil Kumar, Ram pratap

- Drawbacks are error in machines may cause wastage of complete stock, error in managing database, piracy etc
- Advantages are online availability of books, automatic printing and online record of books and distributors, automated printing and binding machines, better logistics etc

Team 8: mining sector

Prashit Gupta, Anil Rana, Sagar Chaudhary, Dhruv Mittal, Rohit Jain

- Reduced occupational hazards to labourers, reduced health problem, market variation manage quickly.
- Production rate varied according to daily need, reduced corruption by weighing mechanisms.
- Drawbacks are loss of labour & reduced opportunities for jobs, monopoly, reduced extraction costs leads to expulsion of small businessmen.

Team 9: agriculture sector

Anshul Goyal, Ankit Kumar, Kautsya, Navratan

- Many Indian people depend on agriculture, problems of farmer solve by IVRS.
- Automation in agricultural machinery, quality testing & to integrate agriculture based industries & farmers.
- Drawbacks are loss of employment, capital intensive, social impact, and accidents can happen.

Team 10: retail sector

Eshaan Agarwal, Raghav Saran Aggrawal, Pranit Arora, Sunil Kumar Rawat, Shivam Mishra

- Automated billing & database systems through barcode, QR codes, simple warehouse management & order advisors.
- Removed error in stock calculations & financial assessments.
- Automated delivery tracking system, automated quality check through image processing, automation in vending machines.
- Disadvantages are huge potential customer can be lost, emotional touch & social interaction would be lost, high fixed cost.