By Norman Sandler

Power generation, transporta-

tion and the environment are cur-
ently on the list of priorities of the National Science Foundation's Electric Engineering Department.

During a two-part panel dis-

cussion in Cambridge, entitled "New Directions in Electrical and Electronic Re-

search," eight of the depart-

ment's researchers explained cur-

rent planning and discussed what's next in their research is dealing with.

Perhaps the most notable fea-

ture of the meeting was the open-

spare attendance, was an under-

lying need for fast in environmental

problems. This concern was ap-

parent in discussions of projects entangled with utilities and "dynamics" to "modes of ground transmission..

In the area of systems dynamics, Professors F. C. Schewepp and G.L. Wilson are both currently engaged in re-

search on improving power genera-

tion and distribution to meet the "increased consumption of electricity." Schewepp's research group has undertaken a crash proj-

ect for the President's Office of Science and Technology. The purpose of the study will be to determine where the US should put its money for R & D [re-

search and development] in the field of power generation.

Wilson is working on a joint effort with the US atomic energy com-

mission on superconductors, using liquid helium, with hopes of reducing weight and cost while increasing efficiency.

Revelation suggested as method for science

(Continued from page 3)

by Carol McGuire

Labor and education specialist-

ists urged a greater flexibility in technical and scientific training to prevent a repetition of the current engineering and scientific unemployment, in an inaug-

uration panel Monday.

Entitled "Manpower and Wom-

anpower," the panel was chaired by Dean Robert Alberty of the School of Science, who opened the discussion with a presenta-

tion of figures on popula-

tion and technical training.

The panelists were Dr. J. Her-

bert Hollomon, Consultant to the Provost and the President; Professor Charles Myers, Man-

agement; Dr. Raymond Bispin-

ghof of the National Science Foundation and Aeronautics and Astronautics; and Dean William Porter, Architecture and Urban Planning. Each of these present-

ed his views of the trained-

manpower situation at length.

Dr. Hollomon views the scien-

tist as moving in a cyclical "corn and hogs" pattern, ac-


One of the most interesting research projects discussed was "a new concept in electronic automa-

tion," developed at MIT by Pro-

fessors Richard D. Thornton and Henry H. Kolm.

Thornton explained that the high speed ground transportation system they developed is a magnetic suspen-

sion "magnet-plate," propelled by a force between "induced current in the rail (aluminum) and three magnetic fields established by the use of cryogenic super-

conductors."

Thornton noted that the ve-

hicle would probably attain speeds of 250 mph, and even

greater if it travels through a partial vacuum. According to

Thornton, the requirements for construction of the system would "not be as great as a six lane highway," and it "would probably be more economical in use than a jet plane along the same route."

He said that there is little being done in the United States with the idea of magnetic sus-

pension but that in Japan, the new Tokyo-Osaka high-speed train will be a form of magnetic suspension. Thornton estimated that a "Boston to New York run will be the first employment of the system in this country, but that they hoped to have a 1/25th scale model of the "magnet-plate" on display at Dulles International Airport in Wash-

ington, D.C. next May.

Other research cited by staff members as currently going on at MIT included an area of electrical engineering which includes application of pattern recognition and image processing; the increased need for bio-medical engineering in surgery, and a volumetric computer program developed in the Department of Computer science, with symbolic computation and algebraic manipulation.

Manpower situation bleak - for now

by Richard J. Hirt

The current over-supply of physical scientists, the National Science Foundation, claims, is mainly due to the great decreases in technically-oriented space and defense expenditures, which cannot be made up by private indu-

try.

Right now, there is a decline in the number of students choos-

ing physical science and engineer-

ing (except, for some reason, chemical engineering), and a great increase in those studying the life and social sciences. The current over-supply of physical scientists, the National Science Foundation, claims, is mainly due to the great decreases in technically-oriented space and defense expenditures, which cannot be made up by private indu-

try.

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