

THE PRESIDENT OF THE INSTITUTION OF ENGINEERS
ANNUAL DINNER SPEECH FOR OCTOBER 4TH, 1975

(Engr. Michael B. Lee, F.I.E.S. - President)

HONOURABLE MINISTERS, DISTINGUISHED GUESTS, LADIES & GENTLEMEN & NARC
FELLOW ENGINEERS:

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IT IS USUAL AT THIS TIME OF THE YEAR FOR US TO HAVE AN ANNUAL GATHERING WITH OUR LADIES AND GUESTS AND FOR THE PRESIDENT TO MAKE A SPEECH ON THE FINE ACHIEVEMENTS MADE BY THE INSTITUTION IN THE PAST YEAR BUT INSTEAD I WILL GIVE YOU SOME OF MY THOUGHTS, HOPES AND VIEWS OF THE PROFESSION. WE HAVE GROWN FROM 168 MEMBERS IN 1966 TO 1,460 MEMBERS TODAY, OF WHICH OVER 1,000 ARE CORPORATE MEMBERS.

I MUST FIRSTLY THANK MY DEDICTED AND IDEALISTIC COUNCIL MEMBERS FOR THEIR UNWAVERING SUPPORT, WITHOUT WHICH WE WOULD NEVER HAVE ACHIEVED THE INROADS WE HAVE MADE IN GAINING RECOGNITION AS A RESPECTED AND RESPONSIBLE NATIONAL BODY OF PROFESSIONAL ENGINEERS. I MUST ALSO THANK ALL MEMBERS OF THE INSTITUTION WHO HAVE SERVED SO ABLY AND LOYALLY ON VARIOUS GOVERNMENT AND STATUTORY BOARDS AND THEIR COMMITTEES ON A VOLUNTARY BASIS FOR THE BENEFIT OF THE NATION. LASTLY BUT NOT LEAST, I MUST THANK OUR PATIENT LADIES WHO HAVE HAD TO GIVE UP THEIR HUSBANDS WHEN WE HAVE DISCUSSED ENGINEERING MATTERS LATE INTO THE NIGHT. I MUST SAY THAT MOST OF THE LADIES HAVE SUPPORTED THEIR HUSBANDS LOYALLY BY NOT COMPLAINING WHEN THEY HAVE HAD TO GIVE UP PRECIOUS MOMENTS FROM THE FAMILY.

STANDARDS: WE, THE INSTITUTION HAVE COME A LONG WAY IN SAFEGUARDING OUR PROFESSIONAL STANDARDS WHICH HAVE BEEN MAINTAINED AT A HIGH LEVEL. THIS IS NECESSARY AS WE MOVE RAPIDLY INTO INDUSTRIALISATION AND AS THE ENGINEERING PROFESSION GETS MORE AND MORE SOPHISTICATED IN THIS REGION. WE NOW INTERVIEW ALL CANDIDATES APPLYING FOR CORPORATE MEMBERSHIP TO ENSURE THAT THE BASIC MINIMUM REQUIREMENTS ARE REACHED. THIS INCLUDES AN ASSESSMENT OF THEIR WORKING KNOWLEDGE OF THE PRACTICE OF ENGINEERING.

OUR INSTITUTION WILL BE GAUGED NOT BY OUR MOST ABLE AND EMINENT MEMBERS, BUT BY OUR WEAKEST AND LEAST COMPETENT MEMBER.

THE PROFESSIONAL ENGINEERS ACT: THE PROFESSIONAL ENGINEERS ACT, 1970, WAS PASSED IN ORDER TO ENSURE A HIGH STANDARD OF ENGINEERING PRACTICE IN THE REPUBLIC, AND TO PROTECT LIFE, PROPERTY AND THE PUBLIC. A MOST TIMELY ACT, AS WE MOVE RAPIDLY INTO INDUSTRIALISATION. THE SPIRIT AND INTENT OF THE ACT IS TO PROVIDE THE REGULATIONS TO ENSURE THAT PROFESSIONAL ENGINEERING WORK IS UNDERTAKEN BY THOSE WHO ARE COMPETENT AND TRAINED FOR THE PURPOSE SO AS TO SAFEGUARD THE PUBLIC AND TO ENSURE THAT THE REPUBLIC IS ABLE TO GEAR ITSELF TO THE DEMANDS OF HIGH TECHNOLOGY AND THE INDUSTRIALISATION OF THE REGION. IT ALSO THRUSTS MORE RESPONSIBILITIES ON TO THE ENGINEER AND WILL RAISE THE STANDARDS OF ENGINEERING PRACTICE IN THE REPUBLIC.

WE THEREFORE URGE THE VARIOUS GOVERNMENT DEPARTMENTS TO HASTEN DEVISING AND COMPLETING THEIR REGULATIONS, DEFINITIONS AND INSTRUCTIONS

IT IS ONLY WHEN THE SPIRIT OF THE ACT IS EFFECTIVELY INTRODUCED BY SUCH REVISED REGULATIONS, DEFINITIONS, AND INSTRUCTIONS THAT ENGINEERS WILL BE ABLE TO OFFER THEIR SERVICES DIRECTLY TO THE CLIENT, THUS REDUCING ENGINEERING COSTS TO THE CLIENT AND TAKING ON THE FULL RESPONSIBILITIES AND ROLE OF A PROFESSIONAL ENGINEER AS SPELT OUT IN THE PROFESSIONAL ENGINEERS ACT. AS THESE NEW REGULATIONS ARE ENFORCED THE ENGINEER WHO DESIGNS, ERECTS, AND SUPERVISES ENGINEERING PROJECTS, BE IT CIVIL, ELECTRICAL, MECHANICAL OR ANY OTHER ENGINEERING DISCIPLINE, WILL HAVE TO UNDERTAKE FULL RESPONSIBILITY FOR IT. WHEN HE USES HIS PROFESSIONAL ENGINEER'S STATUS HE HAS ACCEPTED THE RESPONSIBILITY. THIS MEANS THAT GOVERNMENT DEPARTMENTS NEED NOT MAINTAIN A LARGE, HIGHLY EXPERIENCED AND SOPHISTICATED STAFF TO CHECK, MONITOR, TEST, SERVICE, AND ADVISE, THE PRIVATE SECTOR. THE PRIVATE SECTOR THEREBY PAYS IN ACCORDANCE WITH HIS OWN DEMANDS AND REQUIREMENTS. THIS WILL BRING MANY DIRECT BENEFITS TO THE NATION WHICH SHOULD BE QUITE OBVIOUS.

RESPONSIBILITIES: BUT LET ME REMIND YOU ENGINEERS THAT WITH THE ADDED RESPONSIBILITIES THAT YOU WILL HAVE TO UNDERTAKE IN THE FUTURE THAT THERE IS A PRICE TO PAY. THE PRICE IS THE PENALTY FOR INCOMPETENCE, NEGLIGENCE, OR UNETHICAL PRACTICE OF YOUR PROFESSION. THESE ARE CLEARLY SPELT OUT IN THE ACT AND IN THE CODES OF PRACTICE. IT IS ESSENTIAL THAT EACH ONE OF YOU ARE ADEQUATELY FAMILIAR WITH THE CODES AND ALL RELATED REGULATIONS IN ORDER THAT YOU ACT WITHIN THE LEGAL FRAMEWORK OF THE PROFESSION. LACK OF BUSINESS OR LEGAL EXPERIENCE, OR AS A RESULT OF SHEER ENTHUSIASM OR SELFISHNESS WILL NOT MITIGATE INFRINGEMENTS OF THE CODES. BUT THESE CODES HAVE BEEN DRAWN UP TO ORGANISE AND REGULATE THE PROFESSION AND IF WISELY INTERPRETED AND ADMINISTERED WILL NOT BE A DETERRENT TO THE CONSCIENTIOUS AND THE ABLE, BUT IN FACT WILL ALLOW HIM TO DEVELOP FROM STRENGTH TO STRENGTH.

SAFETY: IT IS THUS NECESSARY TO PLACE SQUARELY THE RESPONSIBILITIES IN ABLE HANDS ESPECIALLY IF IT INVOLVES RISKS TO LIFE, PROPERTY, AND THE PUBLIC. INDUSTRIAL HEALTH AND SAFETY, NOT ONLY CAUSES PAIN AND HARDSHIPS TO THE IMMEDIATE FAMILIES AFFLICTED BUT ALSO IS WASTEFUL OF HUMAN LIVES AND LIMB AND IS A HEAVY NATIONAL BURDEN. AUTHORITY AND RESPONSIBILITIES MUST BE CLEARLY DEFINED AND ASSIGNED. THE ULTIMATE AUTHORITY AND RESPONSIBILITY IN ANY ORGANISATION MUST REST WITH THOSE WHO ARE COMPETENT AND HAVE A SUFFICIENT APPRECIATION AND EXPERIENCE IN UNDERSTANDING THE ^{BASIC} REAL CAUSES OF INDUSTRIAL ACCIDENTS. RESPONSIBILITY CANNOT BE ASSIGNED WITHOUT THE ACCOMPANYING AUTHORITY TO MAKE DECISIONS OR RECOMMENDATIONS. THIS SYSTEM MUST QUICKLY EVOLVE WITHOUT FURTHER DELAYS.

I FEEL THAT IN THE LAST TWO DECADES OUR ENGINEERING MANPOWER DEVELOPMENT HAS MADE SIGNIFICANT PROGRESS, DUE TO LIBERAL AND FAR SIGHTED POLICIES, TO THE EXTENT THAT THE ENGINEERING PROFESSION IS NOW AT A STAGE WHERE THEIR SERVICES CAN BE ADEQUATELY PROVIDED FOR BY PROFESSIONAL MEN AND NOT BE SO DEPENDENT UPON GOVERNMENT AGENCIES

LET US CONTINUE WITH THIS LIBERALISATION SO THAT WE CAN GROW AND DEVELOP IN MATURITY SO AS TO BE ABLE TO LOOK FORWARD AND PLAN FOR THE NEXT STAGE OF OUR NATIONAL DEVELOPMENT.

CONSORTIUMS: WE HAVE AMONG OUR MEMBERS MANY MEN OF GREAT TALENT, EXCELLENT CIVIL ENGINEERS, TALENTED ELECTRICAL ENGINEERS, OR VERY EXPERIENCED MECHANICAL ENGINEERS. WE HAVE ALSO IN OUR FAIR CITY ASTUTE BUSINESSMEN, LEARNED LAWYERS, ABLE FINANCIERS. BUT WE HAVE NOT BEEN TERRIBLY SUCCESSFUL IN BREAKING DOWN OLD ASIAN TRADITIONS OF THE FAMILY BUSINESS OR THE INDIVIDUAL ENTREPRENEUR OR SOLE PROPRIETORSHIP ATTITUDES. WE NEED TO EVOLVE TEAMS OR COMBINATIONS OF THESE INDIVIDUAL TALENTS IN ORDER TO UNDERTAKE PROJECTS AND CONTRACTS LARGER THAN WE HAVE EVER EXPERIENCED BEFORE IN THE INTERNATIONAL MARKETS. WE MUST EVOLVE AND COORDINATE OUR TALENTS FOR THE MAJOR ENGINEERING OR SERVICES CONTRACTS WHICH ARE AVAILABLE IN THE AREA. IT IS OUR BASIC PHILOSOPHIES AND PERSONAL ATTITUDES THAT HAVE TO BE MODIFIED. WE POSSIBLY WILL REQUIRE SOME VERY POSITIVE CATALYTIC ACTION, STIMULATION AND ASSISTANCE FROM THE GOVERNMENT IN THE NEXT FEW YEARS IN ORDER TO EVOLVE. WE DON'T REQUIRE COMPETITION OR INTERVENTION; WE NEED SUPPORT AND ASSISTANCE TO GET ORGANISED, TO BE ABLE TO GROW AND MATURE, TO GAIN EXPERIENCE ON THE HOME FRONT, TO BE GIVEN GENEROUS INCENTIVES FOR EXPORT PROMOTION, AND FOREIGN DOLLAR EARNINGS FOR OUR GOODS AND SERVICES, BACKED UP BY EXPORT AND PAYMENT FOR SERVICES GUARANTEES.

I AM A STRONG BELIEVER IN THE PHILOSOPHY OF LAISSEZ FAIRE, SEEKING GOVERNMENT ASSISTANCE AND SUPPORT IN GETTING THE SYSTEM WORKING AND ON ITS FEET AND THEN SHE SHOULD QUIETLY WITHDRAW TO LET FREE ENTERPRISE OPERATE IT EXPEDIENTLY AND EFFICIENTLY. MAJOR CONTRACTS IN DEVELOPING COUNTRIES WOULD EXPERIENCE LESS TECHNICAL OR POLITICAL COMPLICATIONS IF UNDERTAKEN BY STRONG PRIVATE CONSORTIUMS WHERE SPOT DECISIONS WILL BE SPEEDED UP AND PROVIDING THE BUSINESS FLEXIBILITY AND THE STIMULATION OF PRIVATE ENTERPRISE. WE MUST VERY QUICKLY BUILD UP SUCH CONSORTIUMS FOR OUR FUTURE EXPANSION INTO THE OVERSEAS MARKETS.

MANPOWER DEVELOPMENT: VARIOUS AGENCIES ARE ATTEMPTING TO IDENTIFY AND DEVELOP OUR MANPOWER RESOURCES AND ARE PREPARED TO SPEND LARGE SUMS OF MONEY TO ENSURE THAT WE HAVE THE RIGHT PROPORTION AND QUALITY OF MANPOWER TO PROPEL THIS NATION FORWARD IN THE NEXT FEW DECADES. WE HEAR OF THE DEVELOPMENT SCHEMES FOR TECHNICIANS, CRAFTSMEN, APPRENTICES AND OTHER SIMILAR LOWER LEVEL TECHNOLOGY TRAINING, AND WE HEAR OF TECHNICAL OR TECHNICIAN TRAINING INCENTIVE SCHEMES FROM THE FINANCE MINISTRY, BUT WE HEAR LITTLE OF THE DEVELOPMENT OF THE EXECUTIVE, OR THE SUPER SALESMAN, OR THE EXPORT MANAGER, OR HIGHER LEVEL MANAGEMENT. WE SEEM TO EXPECT THIS CLASS OF PEOPLE TO JUST EVOLVE. WE NEED ARTIFICIAL STIMULATION TO ACCELERATE THIS PROCESS FOR COMPETITION IN INTERNATIONAL TRADE AND SERVICES.

WE ARE NOT REALLY SHORT OF FRESH GRADUATES, BUT WE ARE SHORT OF SENIOR MANAGEMENT. THIS MANAGEMENT TEAM COULD EVOLVE FROM THE ARTS, SCIENCE, OR ENGINEERING STREAMS BUT TOP EXECUTIVES REQUIRE A GOOD UNDERSTANDING AND COMPREHENSION OF MULTI-DISCIPLINES. IN ORDER TO

ENCOURAGE THE DEVELOPMENT OF A VERSATILE SENIOR MANAGEMENT WOULD REQUIRE FURTHER TRAINING AND EXPERIENCE AT SENIOR LEVELS IN THE AREAS OF FINANCE, BUSINESS, MANAGEMENT, TECHNOLOGY, AND OTHER SPECIALISED AREAS. WE MUST PROVIDE THE AVENUES AND THE INCENTIVES SO THAT WE CAN ACCELERATE THE NATURAL PROCESS. WE MUST TAKE MUCH MORE POSITIVE ACTION TO ENSURE THAT THE YOUNGER GENERATION WILL NOT BE FRUSTRATED IN PROGRESSING FORWARD.

BRAIN CENTRE: WE MUST RECEIVE POSITIVE ENCOURAGEMENT AND STIMULATION TO DEVELOP SINGAPORE AS THE BRAIN CENTRE OF THE AREA. THERE MUST BE POSITIVE CONTRIBUTIONS TOWARDS RESEARCH AND DEVELOPMENT AND UNLESS THE PURSE STRINGS ARE MORE GENEROUSLY LOOSENED TO STIMULATE AND LAUNCH SERIOUS RESEARCH PROGRAMMES, WE WILL NOT BE ABLE TO KEEP AHEAD OF THE RACE.

TOKEN SUMS CONTRIBUTED TOWARDS RESEARCH AND DEVELOPMENT, OR SENIOR MANPOWER DEVELOPMENT WILL ONLY RECEIVE TOKEN RESPONSE. FINANCE COMMITTEES, AND DECISION-MAKING BOARDS IN ADDITION TO ACCOUNTANTS AND FINANCIERS, OR BUSINESSMEN, SHOULD HAVE IN THEIR MIDST FORWARD PLANNERS IN THE FORM OF ENGINEERS AND SCIENTISTS WHO ARE IN TOUCH WITH CURRENT TECHNOLOGICAL DEVELOPMENTS AND TRENDS SO THAT THEY CAN CONTRIBUTE THEIR VIEWS AND MODERATE DECISIONS. THE FAR-SIGHTED LONG-TERM VIEWS OF ENGINEERS AND SCIENTISTS WITH TECHNOLOGICAL INSIGHT OF FUTURE POTENTIAL CAN ONLY BE A CONSTRUCTIVE SUPPLEMENT TO SUCH COMMITTEES.

EXTENDING OUR MANPOWER AVAILABILITY: FURTHERMORE, WE HAVE MANY SENIOR AND EXPERIENCED PROFESSIONALS, OF WHICH THIS COUNTRY IS SHORT, WHO AS THEY APPROACH THE EARLY RETIREMENT AGE OF 55 YEARS, WILL BE PUT OUT TO PASTURE. WE SHOULD SEEK WAYS TO HARNESS AND UTILISE THIS TALENT, WHICH WOULD OTHERWISE GO TO WASTE, FOR ANOTHER 10 TO 15 YEARS FOR OUR MUTUAL BENEFIT. MANY INDUSTRIALISED AND SOPHISTICATED COUNTRIES HAVE EVEN SEEN WAYS TO UTILISE THOSE BEYOND THIS UPPER AGE GROUP AS SPECIALIST ADVISERS GAINFULLY.

WITH RETIREMENT FUNDS BASED ON SCHEMES THAT ARE NOW LONG OBSOLETE DUE TO THE HIGH RATE OF INFLATION, MANY SENIOR MEN HAVE TO SEEK AND PLAN FOR INEXPENSIVE HAVENS FOR RETIREMENT SOME 5 OR 10 YEARS BEFORE RETIREMENT DAY. INEVITABLY SUCH HAVENS ARE ALWAYS OVERSEAS WHERE EQUIVALENT HOMES ARE MUCH CHEAPER AND MANUAL JOBS CARRY NO STIGMA. WE SHOULD MAKE PROVISIONS AND PROVIDE THE NECESSARY ASSURANCES TO SUCH MEN FOR THEIR FUTURE SO THAT WE WILL BE ABLE TO TAP THIS ADDITIONAL SOURCE OF EXPERIENCED MANPOWER. THIS CAN BE UNDERTAKEN WITHOUT FRUSTRATING THE ASPIRATIONS OF OUR YOUNGER MEN BY PROVIDING A FLEXIBLE SCHEME TO UTILISE SUCH MEN, EVEN IF IT REQUIRES A PERIOD OF RETRAINING. THIS SCHEME WILL REQUIRE THE PLANNING AND SUPPORT OF THE RIGHT QUARTERS.

FAVOURABLE CONDITIONS FOR GROWTH: WE MUST CREATE FAVOURABLE CONDITIONS TO ADEQUATELY REWARD ABILITY, EXCELLENCE, CREATIVITY, INVENTIVENESS AND PRODUCTIVITY IN ORDER TO ATTRACT AND RETAIN OUR ABLE MEN. WE SHOULD FULLY RECOGNIZE THE ENGINEERING PROFESSION AS A PROFESSION IN ITS RIGHTFUL PLACE AND TO BE REWARDED COMMENSURATE WITH OTHER PROFESSIONS. WE CANNOT AFFORD A BRAIN-DRAIN OF OUR ONLY MAJOR NATIONAL RESOURCE, OUR MANPOWER. WE MUST PROVIDE OUR ABLE MEN THE RIGHT OPPORTUNITIES TO GAIN EXPERIENCE AND STATURE AT THE RIGHT LEVELS FOR PENETRATING INTERNATIONAL MARKETS AND NOT TO FRUSTRATE OR UNDERUTILISE THEIR TALENTS. WE MUST HAVE THE RIGHT ENVIRONMENT FOR GROWTH AND DEVELOPMENT. UNDER CONDITIONS OF STRIFE OR INSTABILITY, ECONOMIC OR OTHERWISE, OUR FIRST FELT LOSS WILL BE THE CREAM OF OUR INTELLIGENSIA.

DESPITE THE DIFFICULT ECONOMIC CONDITIONS TODAY WE AS A NATION HAVE NOT FAIRED BADLY. OUR FORWARD PLANNERS HAVE TAKEN THE RIGHT CORRECTIVE MEASURES. I TRUST THAT AS WE PASS THROUGH THESE TROUBLED TIMES WE WILL BE ABLE TO ACHIEVE EVEN GREATER SUCCESSES.