

# PUBLISHED BY THE STUDENTS OF THE NOVA SCOTIA TECHNICAL COLLEGE

J. M. MacLEOD	Editor
D. G. LORDLY	Assistant Editor
J. B. PIERCE	Business & Advt. Manager
J. C. CAMPBELL	Ass't. Bus. & Advt. Manager
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## **NOVA SCOTIA TECHNICAL COLLEGE**

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HALIFAX, N. S.

### To The Graduates - - -

William A. Logan, Elec. '41, Chief Engineer, Maritime Telegraph & Telephone Co., Ltd.

May I congratulate you on one of the first achievements of your engineering career—your graduation. Twenty or more specialists in their field have attempted, in the best way they know how, to impart to you the fundamentals of engineering, and, more important, the process of engineering thinking. They have said you have the qualifications necessary to become an engineer.

You should be proud of "Tech". You should also be grateful to those twenty, who have done more for you than any other other individuals you will ever meet. It is a truth, I think, that the advancement of one's skills obeys the laws of diminishing returns. In your school and college years and for the first few important years ahead, you will have built the basic structure of your career. Only in the exceptional case can that basic structure be altered. From there on you will accumulate in wisdom and skill but at a diminishing rate.

In the job you select and in the way you do that job, you should apply good engineering sense and take the long range view. You have a potentially successful career of thirty to forty years ahead of you; don't let immediate financial return be the sole yardstick by which you judge the job. In all the industries I have yet encountered so far, the most competent people still filter to the top posts. Success is judged more by performance in the solution of the problem rather than by the selection of the problem.

As an undergraduate, I thought that engineering was the simplest and most interesting of the professions, because it was founded on beautifully exact formulae. One could predict and design with precision. For this reason, many of the graduates were desirous of continuing in a field of pure science. This might be right for the few who enter a research laboratory, but the majority of graduates will find themselves engaged in engineering.

In industry, I think you will become impressed by the striking fact, that despite the marvels of modern day science and the advanced application of laws of science through engineering, there still exists an enormous need in every industry for engineering thinking; there are still much better ways of doing things than the ways we use today and it is the engineer's job to find them.

I think you will also be impressed by the fact that this profession of engineering is never a matter of simple application of formulae alone. It is, more than anything else, a business of dealing with other people, with methods and systems developed by others that are difficult to change. It is a matter of dealing with problems, which in many cases are capable of solution engineering-wise, but the solutions are impossible to adopt due to economic barriers. More and more, industry is leaning on the engineer to find a cheaper solution; the engineer must also be part-economist.

I belong to the fast-growing Electrical Communications industry in Canada. In common with other branches of industry, there is a distinct shortage of engineering talents. The greatest shortage is in the type of engineer who possesses a solid background of engineering achievement—one who can successfully carry out a project on his own. For this type of graduate there is no limit placed on his progression. Indeed, in the largest Communication Company in Canada today, the President and all operating Vice-Presidents are Professional Engineers.

Your status as a Professional Engineer is considerably enhanced by the contributions made by others before you. You have a duty to contribute no less to the status of the Professional Engineer. In this regard you would be well advised to take part in the activities of the Engineering Institute, and to contribute wherever possible to the activities of your community. In short, be a complete engineer.

I wish each one of you the success you deserve in the years ahead—you, like I, may not find it simple but I am still sure it is the most interesting of all the professions.

# Nova Scotia Technical College « Alumni Association

Dear 1954 Graduates:

It is with the greatest of pleasure that I, on behalf of the Nova Scotia Technical College Alumni Association, welcome you into our midst.

You are all to be congratulated on your academic success, and we look forward to your associations in business life.

During the last several years the Alumni spirit has deepened somewhat and it is hoped that this encouraging sentiment will be further nurtured and bring about a very strong "Tech" Alumni. We look to the new graduates to inject vitality to the Association, and your Committee would like to impress upon you that any Alumni Association is as strong as its newest members wish it to be.

A number of the 1954 graduates will, unfortunately, be required to leave this area in the search of opportunity and employment, and thus not have direct contact with the Halifax mother branch. However, sister branches are operating in Montreal and Toronto which will afford an excellent contact for those who reside in these areas. To those who will find no branch within convenient proximity we urge an extra effort to become active members by use of the mails to communicate their ideas in connection with the Association's business.

I would be remiss in my duties were I not to mention the monetary framework which, naturally, is most vital if any organization is to function and grow. In this regard, your obligation cannot be over-emphasized, and one of the few pleasurable duties of our Secretary-Treasurer is conducting this sphere of his activities.

We wish you all every success, and again say "Welcome".

J. G. BELLIVEAU,

President.



SJ MONTGOMERY PROF OF MECHANICAL ENGINEERING



GH. BURCHILL BS. PROF. DF ELECTRICAL ENGINEERING

G.R SLEMON PhD. ASST. PROF CF ELECTRICAL ENGINEERING

3





MR. FORAN PAD. PROF OF CHEMICAL ENGINEERING



COL 3 BALL B.Se PROF. OF CIVIL ENSINEERING











DB MALEAN PAD ASSOC PROF OF INDUSTRIAL CHEMISTRY





EL CAMERON BE ASST PROF OF MINERAL ENSINEERING



O. KNOP ASST. PROF OF METALLURSY









OCOCHKANOFF MASC CE GRANT BSC ASST, PROF OF ASST PROF OF MECHANICAL ENGINEERING ELECTRICAL ENGINEERS





H.S. HEAPS MA
ASST. PROP OF
ENGINEERING MATHEMATICS

The Faculty

### President's Message to the Graduating Class

In my message to the graduating class of 1951—three short years ago—I pointed out that the lowering clouds of war hung heavy overhead and prospects of peace were possible only "by a great outpouring of strength, strength in service, strength in production, strength in defence." During the past year the clouds have lifted and although the sun of peace is not yet bright overhead, at least the thunder of the guns has lessened, if it has not entirely ceased, throughout the world. Undoubtedly, this is due to the great outpouring of strength throughout the western world. and a strength made possible by the advance in science and the applications of



A. E. CAMERON President

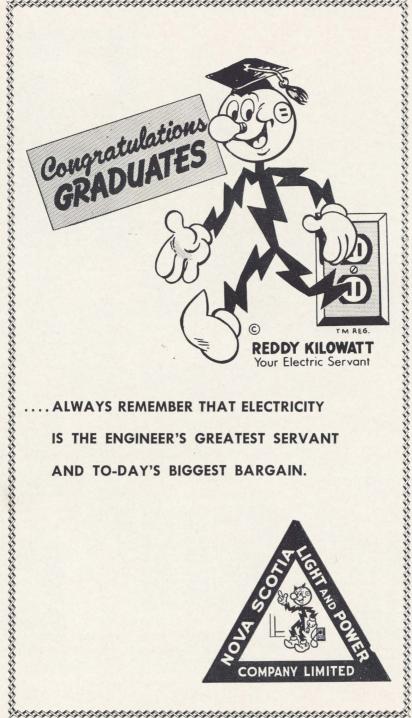
science that are engineering, throughout the years between.

Much remains to be done. One has only to glance at the Paley report on "Resources for Freedom" to realize the sacrifices that have been made, the wastage that has occurred, the shortage that must be met, and the need that exists for men trained in those principles that are needed to overcome these factors. The future of our civilization, our mode of life, depends almost completely upon successful engineering for production, distribution, and conservation of the material resources of nature available to us.

You are about to enter the everyday world of current affairs. Somewhere you will find your life's work. It may not be in the direct field in which you have trained yourself. It may not be even in the broad field commonly considered as "engineering". Nevertheless it will be engineering, in that you will apply the principles of engineering training, consciously or unconsciously, in everything to which you put your hand.

The discipline of your training has been to make you aware of the relation of the parts to the whole and although this has been largely with material things, I want to point out that it is just as important in human relations. On the road ahead there are two parts for you to play; one, your professional or business life, and, the other, your political or citizenship life. The mental processes developed through your engineering training will be particularly valuable in the latter part and should be made freely available for the benefit of the community in which you live.

ALAN E. CAMERON, President.



ALWAYS REMEMBER THAT ELECTRICITY IS THE ENGINEER'S GREATEST SERVANT AND TO-DAY'S BIGGEST BARGAIN.



# GRADUATES 1954

### GRADUATES BY FACULTIES

CIVIL	25
ELECTRICAL	14
MECHANICAL	17
CHEMICAL	6
METALLURGICAL	4
MINING	2



### DONALD PAUL ANDREWS

Middle Musquodoboit, N. S.

Paul first saw the light of day at Middle Musquodoboit in '32, and got his high school training at Truro Senior High School. He attended Mt. A. where he obtained his Engineering Certificate in 52 and then attended Tech where he will graduate as a Civil Engineer. He spent last summer out West with the Imperial Oil Co., and bought a 10 gallon hat, now he is obliged to return to the West to get the use of this hat. We feel that Imperial will get a good worker and a ready wit. While at Tech he played interclass hockey, was a stamp collector, and a violent hearts player. We all wish Paul every success and know that his easy manner will stand him in good stead in his chosen work.

### DONALD CAMERON AZAR

Sydney, N. S.

Born at Sydney, Don obtained Senior Matriculation at Pickering College, Newmarket, Ontario, and then proceeded to St. F. X., where he obtained an Engineering Diploma and B.Sc. Entering Tech in the fall of '52 and hoping to leave in '54, one of Don's problems has been the casting of plastic for the Civil Exhibit.



### ANDREW BEDFORD BALL

Badger, Nfld.

Doc completed high school at Mt. Allison Academy in '47 and then entered Mt. Allison University where he obtained an Engineering Diploma. After a year out, he came to Tech in '52 and will finish up in Civil this spring. His plans are rather indefinite but we rather expect him to return to his native Newfoundland after spending the past three years finding out about the rest of Canada. We wish him the best in his future endeavours.



### JAMES ROBERT BENTLEY

Charlottetown, P. E. I.

Jim was born at Charlottetown, P. E. I. He received his elementary education at Charlottetown Public Schools and Prince of Wales College. For his pre-Engineering Jim went to Acadia, and entered Tech in the fall of '52. A participant in sports and student activities, Jim also took unto himself a wife before the fall term of '54. With a pleasant personality and likeable manner, Jim is expected to do well maritally and professionally.



### CIVIL . .

### JOHN HOWARD BOYCE

River Hebert, N. S.

Originally from P. E. I., John arrived at Tech by devious routes including Mt. A., Goose Bay, and the Fisheries Lab. Along the way he acquired a sharp wit and becoming personality which were both put to good use in Seminar, bridge, keeping the Senior Civils awake, and cheering for his Islanders. Future plans are indefinite, but with his ability and personality, we know he won't miss.



### COLIN FRANCIS BOYD

Halifax, N. S.

"C. F." attended St. Mary's University and St. F. X. and obtained his Engineering Certificate from St. F. X. He first came to Tech in '49 but then took a couple of years off to work at various engineering jobs. He will graduate this year from Tech with a Civil Degree. C. F. did not take an active interest in sports but managed to keep up the social side of university life very well. He is also a rabid hearts player and the possessor of a ready wit. His plans for the future are rather indefinite but we know that wherever he goes he will do good work and will also, no doubt, run into people who just happen to have refreshments with them.



### LUIGI LAWRENCE CENTA

Dominion, N. S.

A staunch Cape Bretoner, Lou attended St. F. X. before coming to Tech. His summers were spent with the electrical department of Dosco. Lou is best known for his pursuits in hockey and rugby. His good nature brought him many friends during his stay at Tech. Future plans are indefinite.



### CHARLES ANDREW CLEMENTS

New Glasgow, N. S.

Andy attended High School in New Glasgow and then attended Acadia where he obtained a B.Sc. and Engineering Diploma in '50. He then took a couple of years to spread his charms around Ontario, and decided to return to his native land and Tech in '52. Whilt at Tech, along with the usual extra-curricular activity, he took time to take honours in mathematics. At present his plans are indefinite, but we know his ready wit and satire will stand him in good stead whatever he plans to do.



### CIVIL . . .

### ROBERT HARVEY DAWE

Grand Falls, Nfld.

Bob came to us through the channels of Grand Falls Academy and Memorial University in Newfoundland. He is a noted baseball pitcher and hockey player. His pleasing character has won for him many friends which will be an asset for him always. His future is so far indefinite, but his classmates think it will be "Consolidated". He leaves Tech with the best wishes of all the boys, and we hope success will crown his endeavours.



### RICHARD PAUL DELORY

Georgetown, P. E. I.

Genial and easy going, Rip entered Tech in the fall of '52 after a year spent sifting cement in the Peribonka River in Quebec. Rip passed his pre-Engineering days at St. Dunstan's University, plus two years at St. F. X. where he received his Diploma in '51. His main pastime since coming to Halifax seems to be sleeping and going to shows, being the only man never to miss all the show-changes at five theatres every week. Possessor of a keen and quick mind, Rip will go far in his chosen position, whatever it may be. Best of luck, Richard.



### JAMES BOWEN FENTON

Halifax, N. S.

A native Haligonian, Jim came to Tech in the fall of '52 after a year in Construction. He obtained his pre-Engineering at Dalhousie University. Main interests include badminton, boxing, and agitating the rest of the Senior Civils. Future plans indefinite.



### ROBERT JAMES FLINN

Halifax, N. S.

Halifax born, Bob received his preliminary education at St. Patrick's High School. Then deciding upon engineering, he entered St. Mary's University. Showing an interest in the extra-curricular activities as well as studies, he was well liked. With his Diploma and B.Sc., Bob entered Tech and now in possession of his degree in Civil Engineering and considerable experience he heads out with all prospects of success, and our own good wishes.



### CIVIL . . .

### SIMON REID GIFFIN

Wolfville, N. S.

Giff, as he is known to friend and foe, came to Tech via Acadia, where he picked up his Diploma and B.Sc. His career before that was spent in various makitime towns. With the first year at Tech spent in football and hockey, and followed by darts and circulation manager of the Flash, and a wee bit of work in the second year, we are certain that the boss of the civil exhibit will be a success in Engineering. Best of luck Giff.



### JAMES CLIFFORD GORMAN

South Melville, P. E. I.

Entering Tech from St. F. X. and St. Dunstan's, Cliff's genial personality and various capacities, among these being work, soon won for him a popular place among the boys. Forsaking the carefree days of his youth for married life in his last year, Cliff still managed to get into the rugby wars, and he is noted for his competitive spirit and front line scrum ability. A lover of chicken in the basket, an enemy of hiccups, Cliff will enter the engineering field well equipped to climb the ladder of success. "Hookers are good, but here's to one of the best."



### JOHN EDWARD HILLIER

St. John's, Nfld.

Another "Newfie", John hails from St. John's, and has the distinction of being the first student from the Curtis Academy, where he received his early education, to graduate in Civil Engineering. From the Academy to Memorial University to Nova Scotia Tech, John has made himself known and liked through his pleasant personality and through his many extra curricular activities such as sports, bridge, etc. Being a 2nd Lt. in the Royal Canadian Engineers (Reserve Force), and soon to be a husband, John's future looks prosperous. Best of luck to you Johnny.



### DONALD ABRAM KEAN

St. John's, Nfld.

Don, a native of Newfoundland, received his early education at Prince of Wales College. Upon graduating from there he went to Dal and then to Tech. While at Dal, he was hit by the love bug and in due time acquired a wife. In the mean time he was able to perfect his bridge and master volleyball. Always ready with his good humor and laughter, Don, his wife Shirl and son Tommy are insured of a happy and prosperous future. Our best wishes go with him as he starts his career.







### CIVIL . . .

### BERNARD VINCENT McDONALD

Waverly, N. S.

Bernie entered Tech in the fall of '52 having received his Senior Matriculation from St. Patrick's High School, and his Engineering Certificate from St. F. X. Bernie's activities were not limited to engineering, however, as he entered the field of matrimony during his senior year there. Besides being a family man, Bernie sublimates his primitive instincts in hunting and hockey, putting teeth into the attack of the Varsity hockey squad, as well as playing suburban hockey with the Waverly Gold Diggers. Although future plans are indefinite, with his high ideals and initiative, his success is a certainty.

### DONALD MacKENZIE MacINNES

Malagash, N. S.

Don went to Mt. A. in '44 and spent three years there before going to Dalhousie where he obtained his B.Sc. and Engineering Certificate. He then came to Tech where he will graduate this spring with a Civil degree. Last year along with his studies he acquired a wife who seems to keep him well in line. While at Mt. A. he played basketball and was a keen skater and skier. His plans are rather indefinite at the moment but he has a bold desire to go to South America. We all wish him the best in his efforts.

### RONALD GRANT MESSENGER

Bridgetown, N. S.

This small place of Nova Scotia feels proud of having Ron as one of its sons. He received early education there and proceeded to Dal where he obtained a B.Sc. with major in mathematics. In '52 he arrived at Tech equipped with a clear and fast thinking mind which enabled him to take an honors course in math. Ron always found time to play basketball and volleyball and with his ready smile he also spent his spare time making friends. At present his plans for the future are indefinite but whichever he chooses we all agree that it will be a bright one. Best of luck Ron.

### KENNETH WILLIAM SHORT

Bedford, N. S.

Better known in the campus circles as Ken, he acquired his early education in Halifax and Bedford. In '42, Ken joined the R.C.A.F., and after discharge entered Dalhousie University for his formal education. He came to Tech in '51 where, although studying and commuting kept him busy, he successfully mastered Post Graduate courses in bridge. The Grand Old Man's main interests are women, photography and sports. Ken's integrity and personality are sure to make his engineering career a success.









### CIVIL .

### IGOR VALENTINE SILGAILIS

Halifax, N. S.

Igor has the honor of being the largest member of our class but he has not been known to use his weight to unfair advantage. Before coming to Canada, Igor graduated from the Baltic University, Hamburg, in 49. He then decided to come to Canada in '50 and entered Tech in '52 on a Civil course. Igor is also one of the married members of our class and also this year has been working for the C. D. Howe Co. here in Halifax. We don't know where he gets all this time but he certainly uses it to good advantage. He plans to work with C. D. Howe Co. We all wish him the best in his future work.

### JAMES RICHARD SOY

Truro, N. S.

Born at Londonderry Station, N. S., schooled at Colchester County Academy, St. Mary's University and Tech, Jim has done well in his years, both academically and on an extra-curricular plane. As manager of the Tech Varsity Hockey Team, "Snipe" has proven himself an able organizer and a good provider. The impression Jim has left on Tech is that of a hardworker and a good friend. With Jim goes every ability and our wish for success.

### FRANK WOODROW TAYLOR

Howley, Nfld.

Frank was born in Howley, Nfld., in '31 and received his early education at Howley Academy. His ambitions lay in the engineering field and Memorial University of Newfoundland took him in the fold where he received his Engineering Certificate. He was one of the social lions and a valuable member of the Students Council. Frank is completing his course at Tech and in his studies and extra-curricular activities he has certainly proved to be one of the boys. Frank's summer jobs have given him a broad field of experience and with this, coupled with good common sense, he should be an asset to any future employer. Frank has a few irons in the fire and all his classmates wish him the very best.

### HENRY MAXWELL TOMLINSON

St. John's, Nfld.

Max came to Tech through the channels of Prince of Wales College at St. John's and Memorial University of Newfoundland. During his stay at Tech he played on the basketball and volleyball teams and won himself a host of friends. In addition to these activities Max found time to take a post-graduate course in bridge. His plans for the future are as yet uncertain, but with his ability and pleasant manner we feel sure that a bright future lies ahead.

### FRANCISCO ANTONIO VILLELA M.

Guatemala, City, C. A.

Frank, as he is popularly known, received his early education at Guatemala City and then came north to Canada in '49 to further his education in the field of Engineering, He took his pre-Engineering at St. Mary's University in Halifax, and came down to N.S.T.C. in 52. While at Tech he has found time from his studies to play varsity basketball and to take part in various social activities throughout the city. Frank hopes to take up Business Administration upon graduation this year. Best of luck for the future Frank.

# ELECTRICAL



### DONALD EDWARD BURKE

Halifax, N. S.

Don or "Bruiser" came to Tech from St. Mary's University, and entered the faculty of Electrical Engineers in '52. Don has spent several summers with the C.O.T.C. He is known around the campus for his interest in the Tech Ball activities and inter-class hockey, where he incidentally was tabbed with the nick-name of "Bruiser". Future plans include General Electric and may success be yours, Don.



### JOSEPH PETER BURTA

Glace Bay, N. S.

Another Cape Bretoner, another Vet., "Joe" served in the Canadian Army four and a half years seeing action in France, Belgium, Holland and Germany. After discharge, Joe went to C.V.T. School at Pictou before entering St. F. X., and re-entering the Army, this time the C.O.T.C. for three years in R.C.E.M.E. At Tech, Joe has been a staunch electrical and a good guy. His future plans are to marry and to settle down in Central Canada where he will be disciplining electrons.



### JOHN JEREMIAH CARROLL

Glace Bay, N. S.

John, who originated in the town of Glace Bay, has come to Tech after receiving his pre-Engineering at St. F. X. He has carried the spirit of Cape Breton with him, proving to those about him that he is quiet, self-sufficient, and has high capabilities in his chosen profession. We at Tech wish John the best success in whatever position he may hold as an Electrical Engineer.



### ELECTRICAL .

### DONALD GERARD COURTNEY

Halifax, N. S.

Don took his pre-Engineering course at St. Mary's University and obtained his Diploma in '51. In '51 Don strolled down Spring Garden Road where he encolled at Tech. As a Junior Electrical, Don took active participation in the interclass sports. Besides sports, Don took great interest in the Nurses' Residence. Don is a very good student and has very high capabilities. We are all sure that Don will be a great asset to whichever Company he will be employed by in the future.



### **ERNEST ALOYSIUS DeCOSTE**

Havre Boucher, N. S.

After a year of Arts at St. F. X., Ernie saw the light and switched to Engineering, and in '52 he finished there with a B.Sc., and an Engineering Certificate. In the fall of '52, Ernie entered N. S. Tech where he found time from his studies to go to the movies, play some ping-pong, and write letters to a young lady in Antigonish. In the spring of '54, Ernie shall have obtained a B.E., in Electrical Engineering. Although uncertain of the future, he is very interested in the electronic field and we all wish him the best of luck.



### RALPH EMMERSON HENNIGAR, Jr.

Chester, N. S.

"Ralph" attended High School in Chester, and in '49 moved on to Acadia to become an electrician, to play chess, and to study engineering. Receiving his Certificate in '52, not being satisfied as an electrician, he joined the electricals at Tech, and since then has made full use of the electrical laboratories. Ralph is undecided about his future activities but his interest lies in instrumentation.



### JEAN LOUIS LEMAY

Shawinigan Falls, Quebec

Coming to Nova Scotia from Quebec, "Jean Louis" entered St. F. X. and from there came to Tech to study Electrical Engineering. While at Tech, he played hockey where his speed was a notable asset to the team. Aside from hockey his extra-curricular activities include ping-pong, and he is well known as one of the "club-room card sharks". His frankness and pleasing personality will be great assets as he tackles the future. He plans to work with The Shawinigan Light and Power Co.



### ELECTRICAL - -

### GEORGE HAVILAND MARTIN

Kinross, P. E. I.

George is another well-known Islander who came to Tech by way of Mount Allison. During his stay at Tech, George played with the rugby squad where his speed and ability were great assets to the team. The future plans of this clean-cut gentleman include the Electronic's Training Program with General Electric. Wherever George goes, he will be readily recognized by his broad and friendly smile.



### STANLEY CYRIL McPHEE

Reserve Mines, Cape Breton

After studying his pre-Engineering at St. Mary's, "Stan" grabbed his cleats, skates and slide rule and wandered down to Tech. During his stay at Tech he put all these items to very useful use. While he is well known on the rugby field for his shifty play, Stan's chief interest is hockey and his ability on the ice has been a big asset to the Tech team. Stan's future plans include Westinghouse with frequent trips to Toronto.



### BERTIN TOMAS POWER

Quebec, Que.

"Bert" attended St. Patrick's High School and St. Francis Xavier University before coming to Tech to study Electrical Engineering. A strong supporter of his class, he played interclass hockey at Tech as well as finding time for hobbies. Bert's future plans include the Defence Research Board.



### RONALD FREDERICK RAINNIE

Woonsocket, R. I., U. S. A.

One of the most travelled members of the class, "Ted" was born in Boston, moved to Woonsocket, thence to Jamaica, B. W. I., and back to Woonsocket to join the U. S. Medical Department with which he served for three years in U. S. A., England, Ireland, and France. Upon returning from War, Ted completed his High School and entered Mt. A. in '47. Leaving Mt. A. in '51, he entered the Electrical Faculty at Tech in the same year. Ted's activities include skiing, swimming, and inspecting the Lord Nelson Tavern. With this background it is not surprising that Ted's future plans are indefinite but he is considering working in power. Whatever he undertakes he will do it well, and he will definitely do it in the U.S.A.



### ELECTRICAL - -

### WILLIAM KIRKPATRICK ROSCOE

Halifax, N. S.

Roscoe received his B.Sc. in physics and mathematics from Dalhousie in '52. That fall his favorite sport, duck hunting, was interfered with by classes at Tech where he threw in with the electricals. During his stay at Tech and Dal he spent three summers with the R.C.E.M.E. in the C.O.T.C. and also two years in R.C.E.M.E. reserve. Armed with his degree in Electrical Engineering, Roscoe plans to work with Canadian General Electric at Peterborough.



### GEORGE GUY SLADE

Millertown, Nfld.

"G. G." received his early education at Millertown and came to Tech via the Memorial University of Newfoundland to take Mechanical Engineering. He had a change of heart, however, and is now an Electrical. His future plans include marriage and a Westinghouse graduate student training course.



### IVAN COTTNAM SMITH

Chester, N. S.

After obtaining a B.Sc. in Mathematics at Acadia, "Cott" came to Tech to continue chasing electrons around. Cott's training includes summers spent in Newfoundland and surveying, in Hamilton at Stelco, and in Halifax at CBH. Cott is well-known for his "gadgeteering" and his deep interest in his work. His future plans include a training course with Canadian General Electric, then he plans to tackle the problem of differentiating the horoscope curve to get the point of maximum income and minimum work.





### RONALD STANWOOD BUTCHER

Middle Musquodoboit, N. S.

After obtaining his early education in Musquodoboit, Ron proceeded to Acadia to earn his Engineering Diploma, and was winner of the Mounce Medal. Since arriving at Tech in '52, he has maintained his high scholastic record. Ron's plans for the future include two years in England to study gas turbines under the Athlone Fellowship.

### DUNCAN JEROME CHISHOLM

Port Hood, N. S.

Dunc attended St. F. X. but before entering Tech was absent from places of learning for two years for various reasons—mainly monetary ones. He arrived here in the fall of '52 and expects to graduate this spring. About all we shall say regarding Dunc is that he is shy and does not appreciate the publicity that is his from time to time.

### GERALD ROBERT CURRAN

Dartmouth, N. S.

Gerry is a native of Dartmouth and received his early education there. After attending the Dartmouth High School, he proceeded to St. Mary's University where he obtained a B. Sc. and Engineering Diploma. After graduation he plans to make his home in Upper Canada.

### MURRAY LEWIS DUBIN

Revere, Mass. U. S. A.

Hailing from South of the Border, Murray came to Dalhousie University in '49 and graduated with his Engineering Diploma in '52. While at Dalhousie he starred for the Boxing Team, winning two inter-collegiate boxing championships. His future plans include marriage and trying to escape from the Draft. Best of luck Murray in your future work.



### MECHANICAL .

### RICHARD MORRIS FISHER

Moncton, N. B.

New Brunswick born, Dick came to Tech via Acadia. An ardent student of rugby, rumor has it Dick attended Tech on an athletic scholarship. Always expert at saving himself for the final dash at exam time, Fish is a never ending source of amazement to his friends. This happy-go-lucky individual showed the serious side of his character by taking the fatal step in January. Future plans are indefinite although we hear mumblings of the CF-105 and A. V. Roe. All the best, Dick and Ramona.



### KENNETH RUSSELL HOLT

St. John, N. B.

Born in St. John, N. B., Ken came to Dal in '49 and then down to Tech in '52. Going out with a clean "bill," Ken intends to take a business administration course and engineer a laundry and dry cleaning business. All the best of luck for the future Ken.



### ALFRED EDWARD HOUGHTON

Hantsport, N. S.

"Joe", after receiving his early education in his home town, entered Mount Allison and obtained his Engineering Diploma in '51. He then retired from his studies for a year to pick up some practical experience in "La Province de Quebec", and later returned to his studies at Tech to continue them in Engineering. During his senior year, he was elected vice-president of the Students' Council. Although his plans for the future are uncertain, his friendliness and ability will assure him success. Best of luck, "Joe".

### ARTHUR ROBERT MacKENZIE

Stellarton, N. S.

Art served overseas with the Air Force before being captured by the Germans (on direct orders from Goering). He received his Science Degree from Dalhousie and from there journeyed to Tech. Rumor has it that while Art works at the drafting board, he sometimes looks beyond it.







### MECHANICAL .

### CHARLES JOSEPH McMANUS

Halifax, N. S.

"Chuck", as he is commonly known, is a true blue Haligonian. After serving his time with the "Fightin" Irish" of St. Pat's. High, he entered second year engineering at St. F. X. An ardent sports-car fan, Chuck managed to spare enough time from his hobby to earn an Engineering Ceretificate in the Class of '52. At Tech, Chuck has mastered the Mechanical course with little trouble despite his stint as Chairman of the Social Committee. As Chairman of the Mechanical exhibit for the Tech Ball Chuck went all the way. The sight of a maroon Ford "barreling" down the alley will be missed by those remaining at Tech. Although his future plans are indefinite, you can bet Chuch will one day attain his dream, a Jaquar with all the trimmings, and with such qualities of leadership, ambition and determination, we know he can't fail.

### LEONARD DONALD MARTELL

Halifax, N. S.

Len is a Haligonian to the core—was born, lived, and obtained his education in Halifax. Pre-Engineering at St. Mary's University and a desire to be the champion dart player at Tech, combined with a pleasing personality and a keen sense of humor indicate a bright future for Len. All the best of luck, Len.

### DONALD ST. CLAIR MELANSON

Heatherton, N. S.

Don is a husky, good looking boy who comes from the Highlands of Heatherton. He attended St. F. X. where he received his Certificate in Engineering in '51. He attained eminence there as a singer in the leading role of the "Mikado". At Tech he was elected member of the social committee in his junior year and in his senior year was appointed Chairman of the exhibit committee. During his college days, he managed to serve three summers with the C.O.T.C. In sports, Don shone as a goal tender, and was also prominent in football. Don's ability in the classroom and on the lathe, his calibre in promoting friendships and helping his classmates, were unexcelled. Projecting his past unto his future we expect great things of him.

### JAMES BERNARD PIERCE

St. John, N. B.

Jim came to us from St. F. X., where he received his Certificate. Since his arrival at Tech, he has played an active part in social affairs. As well as handling his mechanical course he has been Business Manager of the Flash and has also found time for honours in Hydraulics. An ardent dart fan and a member of the select four o'clock Club, Jim received his commission in R.C.E.M.E. and is an active member of the reserve army. He was awarded the R.C.E. scholarship for 52. He plan's to find employment in the pulp and paper industry. With his outstanding personality and engineering ability, he will go far in the future.







### MECHANICAL .

### GERALD ROY POND

Botwood, Nfld.

Roy comes to us from Botwood where he received his early education. Being the only one from the colony among the senior Mechs, he has had to be a diplomat and justify Newfoundland's position on the continent. After his stretch at Mt. A. where he received his Certificate, he arrived at Tech a married man. He holds the distinction of being the only one to pass out cigars to his class-mates this year. Roy received his commission in R.C.E.M.E. in '52 and is now an active member of the R.C.E.M.E. reserve. He expects to top a very successful college career with a degree this year and plans to settle in the maritimes. His outstanding personality and ability make him a man to be watched in the future. Best of luck, Roy.

### ANTHONY HECTOR ROY

Belledune, N. B.

Tony is a native New Brunswicker but is a Nova Scotian at heart, having spent several years as a student and professor at St. F. X. Tony came to Tech in the fall of '52 and gained prominence early in the year by being elected secretary of the students society, and was later elected president of the society in his senior year. Holder of a gold "T" for his executive ability, Tony has also proven his athletic abilities by playing varsity basketball in his junior and senior years. Graduating this spring with his B.E. Mechanical, Tony's future plans will take him to England for two years where he will study and train in industry under the Athlone Fellowship. A truly fine personality and a wonderful guy we wish him every success in his future endeavours.

### FLOYD ST. CLAIR SLOCUM

Hantsport, N. S.

Floyd is a native of East Apple River, N. S., where he received his High School education. After three years in the Canadian Navy he attended Mount Allison where he received his Engineering Certificate in '52. Since arriving at Tech he has proved to be an apt student in Mechanical Engineering. His plans for the future are uncertain at the moment. We wish you the best of luck Floyd, in your chosen profession.

### KEITH EARL VAN VLIET

Lacolle, Quebec

A versatile character, Van is as much at home on a rugby field as he is pushing a slide rule. An adopted maritimer, Van hails from the republic of Quebec. From Mt. A. to McGill to Tech will summarize his engineering schooling. His dynamic manner and gift of gab make friends for him and will stand him in good stead as a sales Engineer. Best of luck, Van.

# H E M ı A



### MECHANICAL .

### HUBERT RANDOLPH ROY WHITEHEAD

Danville, Quebec

Hugh was born in Vancouver, but soon started migrating east and now makes his home in Danville, Picking up a wife and Engineering Certificate at Acadia in 1951 he then spent a year as Works Officer in the R.C.E. being stationed at Valcartier and Halifax. Entering Tech in 1952, he took time out from his studies to bolster the Dart Team and act as Manager and play on the Basketball team. His main interests besides sports have been bridge, ping-pong and teaching his young son to play basketball. His future plans are indefinite, but with Mary and Dunc to aid him, success in Mechanical Engineering is assured.

### EVERETT CLARK BARRETT

St. Eleanors, P. E. I.

Since his arrival at Tech in the fall of '52, "Tennyson" has left his mark not only in academic work, but also in the field of human nature. From P. E. I. and Mt. A., he brought with him a distinctive, warm personality which will hold old friends and make new wherever he goes. His first Aid Certificate has helped him considerably with his "nursing" problems this term, and his desire for research and development holds both a future job and a wife. The best of everything "Tennyson".

### WILLIAM ANDREW BRANNEN

St. John. N. B.

Bill hails from St. John, N. B. He graduated from St. John Vocational in '41 and served in the R.C.A.F. from '41 to '45. After completing a refresher course at C.V.T., Moncton, he entered McGill where he received his Pre-Engineering training. Bill registered at Tech in '52. Although Bill's plans for the future are indefinite, his ability and initiative will undoubtedly bring him success no matter what his choice may be.



### GORDON PRINGLE COLPITTS

Lewisville, N. B.

Gordon came to us from Lewisville, N. B. and in keeping with his past record of high scholastic achievements at Moncton High and later Mt. A., he proceeded to lead his class in a simliar fashion here at Tech. Gordon's interest is by no means limited to engineering—just drop a hint that Montreal will get the Cup this year and you will soon realize it. Gordon is planning to take post-graduate work and has been keeping Atomic Energy of Canada in mind as a possible place for permanent employment. Whatever he does, we know he will succeed. All the best Gordon.





### CHEMICAL . .

### JOHN YERXA GLASS

Fredericton, N. B.

"J. Y"., a native of Fredericton, N. B. came to Tech in the fall of '52 from Fredericton High and U.N.B., and immediately began to show himself to be a student of no mean ability by racking up a series of consistently high marks. He has given freely of his skill at Basketball to the Tech Team, significant of his active participation in college sports at U.N.B. J.G. is looking for some nice job where he and his wife can settle down in a cosy little cottage with a white picket fence. All the best, John.



### KENNETH RENSWICK LANGILLE

River John, N. S.

Ken came from River John, N. S., where he graduated from High School. He then proceeded to Mount Allison, where he received a Certificate in Engineering and then on to Tech where he took Chemical Engineering. During his stay at Mount Allison and Tech Ken was very active in sports, taking part in track events and in boxing.



### JAMES WILLIAM McEWAN

Halifax, N. S.

Jim came to Tech via Queen Elizabeth High School and Dalhousie in the fall of '52. While at Dal, Jim played Canadian Football, took part in Track and Field events, and also became a member of the Sigma Chi Fraternity. At Tech Jim's personality won him a host of friends and we are sure that his hard work will earn a good future for him in industry. Rumor has it that Jim is soon to be a nurse's aid. Best of luck Jim.



### HARRY LESLIE TILLER

Wesleyville, Nfld.

Harry is a true-born Newfoundlander receiving his primary and high school education at Wesleyville his birthplace. He entered Memorial in '46, graduating two years later with an Arts and Science Diploma. From there he entered Dal in '48, graduating three years later with a B.Sc., and Engineering Diploma. While at Dalhousie he was an active member of the Phi Delta Theta Fraternity and is well known for his unique style of step dancing. Future: Uncertain.







### LESLIE FERGUSON CAMUS

Sydney, N. S.

Returning from overseas, where he served with the Canadian Army, Les forsook government employment for Pictou Vet's school. Leaving Pictou, happy and single, Les arrived at St. F. X., still happy, but no longer single. Acquiring a B.Sc., with a major in chemistry, Les moved on, and the fall of '52 found him rattling the doors of N.S.T.C. While at Tech, Les devoted much time and effort to the Mining and Metallurgical Society, and was President of this society in his senior year. Entering the field of Metallurgy this year, we know that this gentleman's fine character, initiative, and urge to see things blossom from ideas into reality, are qualities which assure us that he will be pouring some mighty fine melts in the future.

### CYRIL FREDERICK DIXON

Springhill, N. S.

Cyril received his early education in his home town. During the war he served with the R.C.N.V.R. He obtained his Pre-Engineering at Mount Allison, arriving at Tech in '52. Cyril is married and has one daughter. His future plans are not yet definite but we wish him every success in whatever he undertakes.

### MANUEL GONZALEZ A.

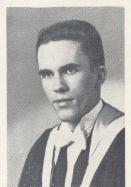
Barranquilla, Colombia, South America

When "Mike" finished High School in Barranquilla, his father advised studying engineering in Canada. Mike entered Acadia in '49, left with his Certificate in '52 and entered Tech in the fall of that year. His aggressiveness has won him success in his studies as well on the soccer and baseball fields; his optimism has made him an ardent Yankee and Red Wing fan. Mike may be persuaded to return home after graduation but whether North or South we know he'll make good.

### JOHN MORRISON MacLEOD Baddeck, N. S.

"Jack" entered Acadia in the fall of '49 after finishing his high school studies at Baddeck. During his three years at 'Acadia, where he obtained his certificate in Applied Science, and his two years at Tech, Jack displayed a great deal of qualities that made him everybody's friend. He has taken a very active part in social activities and sports as well as succeeding in the class-room. The Spring of '54 will find Jack journeying to Alberta where he will work with the Shell Oil Co. To him we wish the greatest success of life.





### ROSS WALLACE KENWAY

Halifax, N. S.

"Snapper", a product of Halifax, breezed through Q.E.H.S., and Dalhousie University to enroll in the Mining Faculty at N.S.T.C. He was elected chairman of the Social Committee, took an active part in the Maritime Geological Convention and was a member of the Volleyball Team during '53 and '54. At the present time Ross is undecided as to his future field of activity but with his varied physical, oral, mental, and executive training, we are sure he will shortly be engrossed in an occupation suitable to his talents.

### WILLIAM TENNENT MacKENZIE Glace Bay, N. S.

"Billie" was a member of the first graduating class from Morrison Glace Bay High School in '48. Entering Acadia University in the fall of '49 he received his Engineering diploma in '52, and from there he came to Tech and followed Mining Engineering with a lean to coal mining. Present indications are that he will accept a position with the Shell Oil Co., centered in Calgary.

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### **Professional Responsibility**

Advancement in the engineering profession, and in professional societies, depends on ability to assume professional responsibility, or to take responsible charge of engineering work. It is natural that the young graduate, anxious to succeed, should look forward to developing this ability; and natural that he should think about ways of helping to develop it.

To assume professional responsibility is to carry out engineering work without supervision by a supervisor, and to be completely accountable for the result. It is an ability which is only developed by practice—by actually doing it. There are, however, some ways of hastening the process which are worth thinking about.

The first of these is to set about becoming thoroughly competent technically in the particular branch of engineering in which you become engaged. College courses are designed to develop the ability of the student to learn for himself, rather than to supply factual information, so do not be dismayed if at first your stock of the latter seems inadequate. It is usually very interesting to learn on the job, and the young engineer soon gathers a large amount of information on all phases of his work. This will include more theory, much practical knowledge, something on costs of materials and labor, and an idea of what workmen can (and cannot) be expected to do. This experience creates self-reliance, and enables one to do important work accurately and thoroughly, with confidence that all the factors have been considered.

The second way of preparing for responsibility is to develop the best possible understanding of and cooperation with the other people in your organization. This may be more difficult than the technical part of the job, and neglect of it may lead to more trouble. You will usually report to one senior engineer, and you should try to carry out his wishes exactly and to finish each job completely, with no loose ends to cause trouble later. As you assume more and more responsi-

bility his instructions will become less and less detailed. Part of your responsibility then is to keep him informed, without bothering him with unnecessary detail, and this requires nice judgment. You will undoubtedly have many ideas which may lead to improvements, but before presenting one, make a well thought plan for carrying it through. If it is approved, carry it out to the best of your ability and be ready to accept the blame if it does not turn out well, as well as the credit if it does. Once an idea has been approved, you cannot consider free to drop it if it does not appear to be going well. Be very careful about making suggestions which can be interpreted as criticisms of the work of other people in the organization. It is desirable to find out the duties of all the people with whom you deal, keep them informed where your work affects their departments, cooperate with them when joint action is needed, and generally respect their rights and interests. More responsibility is likely to mean subordinates for you to direct and this will bring the realization that every engineer is in some degree a teacher. Your subordinates will expect to be told exactly what they are to do, to be allowed some responsibility in doing it and have a chance to improve their own qualifications through their association with you.

Some meanings of the word responsibility have a rather unpleasant sound, but professional responsibility is something to look forward to, and a necessary part of the education of an engineer.

G. H. BURCHILL,

Professor of Electrical Engineering.



JUNIOR CIVILS

Front Row: D. M. Robertson, W. C. Bishop, A. M. Osorio, A. S. Blanchard, J. E. Howard, M. Dignard, P. A. Wright, C. R. Nicol.

Back Row: W. G. Strachan, J. E. Campbell, J. A. B. Bannerman, R. M. Chaisson, W. D. Sharpe, H. F. Verge, W. E. Haley, T. G. Whelan, W. G. Flinn, H. L. Yee.



JUNIOR ELECTRICALS

Front Row: G. M. Webb, J. R. Wells, R. R. Noiles, R. E. Fraser, C. Whelan, R. J. Richards, C. J. Courtney, H. K. Attwood, H. Kitchen.

Back Row: J. E. Bereta, R. R. Nelson, J. C. Maurias, J. P. Mooney, J. H. MacLean, W. E. C. Wright, T. G. Burton, T. A. Groat, P. S. Cormier, L. R. Baril, G. G. Hines.



JUNIOR MECHANICALS

Front Row: R. A. Emmerson, C. S. DeLory, J. A. Scriven, J. D. O'Conner, G. H. Good, P. W. Balcolm, W. V. Mason, D. G. Lordly.

Second Row: R. B. Swansburg, P. G. Napier, D. C. Haggerty, A. L. Mills, D. W. Fong, I. C. J. DiGiacinto, L. T. Russel, J. H. Spidle, W. C. Harris, J. W. Earle, J. R. Sutherland.

Third Row: D. D. Todd, A. G. Hart, J. D. Koppernas, H. K. Allen, G. B. Weld, W. B. Carson, G. L. Crooks.



JUNIOR MINERS, METALLURGICALS AND CHEMICALS

Front Row: R. A. Jay, W. A. Clarke, D. E. Webster, M. G. MacDougall, D. R. Ward, C. R. F. Powell.

Back Row: P. M. Power, S. E. Steeves, N. E. Pullin, J. J. C. Picot, J. C. Campbell, E. K. Myers, D. M. MacKay, R. G. Lebel.

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In each of the provinces in the Dominion there is an Association of Professional Engineers. These associations are the legal registering bodies of practicing professional engineers and they are the watchdogs for the welfare of the engineer.

In Nova Scotia a graduate engineer may be enrolled as an "engineer-in-training" and after two years engineering experience may apply for full membership in the Association.

Be active in your engineering association—enroll now as an engineer-in-training. It will help you become established by giving you a better professional standing, it will bring you into contact with senior members of the profession who are anxious to assist you, it will help the profession as a whole.

When you tack your degree after your name, when you qualify to add those important initials, "P. Eng.", signifying "Professional Engineer", you are a member of an association and it is up to each member to abide by the rules and endeavour to bring credit to the Association.

Your long years of study have brought you academic qualifications, with your experience will come engineering qualifications. You must bring yourself true professional status. The Association of Professional Engineers of Nova Scotia is anxious to help you. Good luck!

JOHN E. CLARKE, P. Eng. President, Association of Professional Engineers of Nova Scotia

#### "To Each His Own"

Most professional men are proud of their profession, of their abilities within their profession. We who have chosen professional engineering must look to some organization within our profession to associate ourselves. The Engineering Institute of Canada is the organization. With 47 branches extending from St. John's, Newfoundland to the Yukon, we can associate ourselves with other professional engineers and enjoy a technical information development program at the social level. You can be a member of a service club, a social club or a religious organization, but if you are a graduate engineer you should be a member of the Engineering Institute, just as other professions have organizations to which their members belong.

Because the field of professional engineering has grown wider and wider every year it has created a problem. How best can we serve technically the large group of our professional men within the community? Large branches have found it possible to segregate into smaller groups of mutual interest for particular technical talks but come together for more general papers and matters of concern to all. The Halifax Branch can only hope to meet the general demand. That demand should be made clear by the members of our Branch and brought out by the very fact of the contribution and effort that each and every member makes on behalf of this, his organization.

To the young man studying professional engineering, the recent graduate, and to all professional engineers be sure to associate yourself with the Institute. Once there, let your contribution be felt. It may be that your contribution will not be more than an average exchange of views with your fellow engineers at a regular meeting but such exchange may pay you dividends, improve your knowledge, and make you a better professional engineer. It's up to you! It's up to us! To each his own!

O. NELSON MANN, M.E.I.C., P. Eng., Chairman, Halifax Branch, E.I.C.

#### Felicitations From The C. I. M.

The Canadian Institute of Mining and Metallurgy extends to the 1954 graduates of the Nova Scotia Technical College its heartiest congratulations and best wishes for success in starting their professional careers.

Engineering now-a-days covers a very broad field of endeavour and every industry needs engineers of one kind or another. Some industries, such as mining, require all sorts of engineers in the multifarious operations that are necessary to economically and safely extract ore from cavernour depths and process it for the metal markets.

Although each of you is trained in a special field of engineering you will find as you progress, and as opportunity offers, that you may end up in another field entirely.

To those who become associated with the mineral industry the Canadian Institute of Mining and Metallurgy will gladly open its ranks and welcome you into its fold. As a member you will be able to consort with your equals and your betters in the industry. You will find opportunity to enhance your professional stature and also gain recognition and honour for your achievements and successes.

A. E. FLYNN, President.

#### Chemical Institute Of Canada

The Chemical Institute of Canada is a national organization of chemists, chemical engineers and persons interested in chemistry. It is incorporated under Federal Charter as a non-profit organization for the purpose of maintaining the professions of chemistry and chemical engineering in their proper status among other learned professions. It now embraces over 4,000 chemists, chemical engineers, university students and men and women interested in the field of chemistry across the length and breadth of Canada.

The purposes of the C. I. C. are to encourage original research; to protect the public; to be available for consultation by Government or private individuals; to establish scholarships, medals and prizes, to petition Parliament in the interests of chemists and chemical engineers; to provide for the holding and delivery of lectures, exhibitions, public meetings, classes, examinations and conferences—and so to promote and look after the well-being and interests of Canadian chemical engineers, and chemists.

In order to carry on its work it holds more than 600 section, chapter, division, regional and national meetings each year. It maintains a Head Office in Ottawa and it also sponsors 21 student chapters in major Canadian Universities. All its proceedings are published in its Journal, "Chemistry in Canada", which provides technical papers, chemical news and information about industrial and personal activities in Canada.

Chemical engineers will derive many benefits from belonging to this representative professional organization. It will enable them to meet and know personally junior and senior chemical engineers and chemists in industrial, government and teaching positions, to collect a library of British, American and Canadian chemical journals at reduced prices, to use the employment service of the Institute and to participate in the social and professional activities of those who are doing work related to their everyday lives.

DR. M. R. FORAN, (Prof. of Chemical Engineering).

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#### The Tech Ball

The reputation enjoyed by the Tech Ball, which has grown over a period of many years, as being the biggest social event in Halifax, was certainly added to by this year's production. Several new ideas in decorations were offered for the enjoyment of the capacity gathering, and the lighting affects were excellent.

Exhibits themselves were again of a high calibre. To see them basking under their soft lights, the casual observer perhaps does not fully appreciate the "blood, sweat, toil and tears" that went into their construction.

For the third year in a row, the Civils entered the winner's circle, with their representation of a footbridge, shown on a still smaller scale on a surrounding landscape.

As ever, many unusual things have to be taken into consideration when planning an exhibit. For example, if an exhibit can damage, or be damaged by spectators, it must be surrounded by a railing. This railing must be sturdy enough to support any happy member of the throng who needs support while examining the minute details of the display.

A very sincere vote of thanks is owed to Don Melanson, Chairman of the Exhibits; Don Burke, Lighting; and Cullen DeLory, Decorations. Without their hard work and ingenuity this dance would not have been possible.

C. J. McMANUS,

Chairman of Social Committee.

#### Civil Exhibit



With the decorative blue ribbon of first place hanging gaily and somewhat familiarly from the beam of a new type of bridge, the civil entry again carried off top honours.

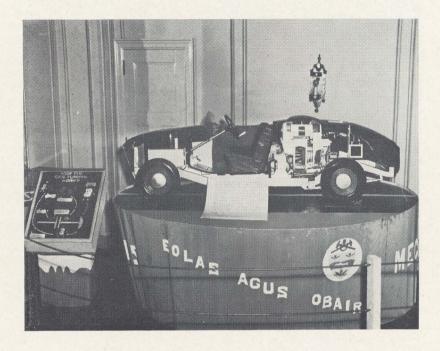
The centre of interest in the Civil Project was a prefabricated, reinforced concrete footbridge. Built to a 1''=1'-6" scale, half of the footbridge was cast in clear casting plastic, with the reinforcement shown in the plastic as in a full scale structure. The other half of the bridge was of reinforced concrete, high early strength cement being used in this part. All beams, columns and stiffeners were joined with precisely built pin-connections as in actual practice.

The attention to perfect detail was also followed in the scenic portion of the exhibit which showed the bridge in actual use. Complete with running water, electric train and a detailed landscape with painted backdrop, the entire scene was to 1'' = 8'- 0'' scale.

Coupled with a revolving sign and a complete fluorescent lighting system, the entire exhibit fitted quite handily into the winners circle, for which privilege the senior civil class is both thankful and proud.

S. R. GIFFIN, Chairman.

#### **Mechanical Exhibit**

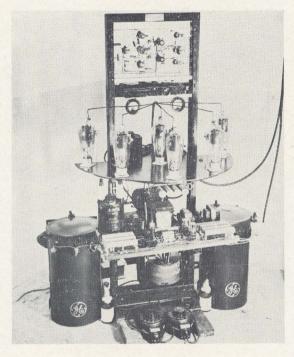


This year the Mechanicals presented a cut-away model of a type of car which very likely will be the main method of road transportation in years to come. The original Rover gas turbine car was the first ever built. Our model was to one-half scale, with the working parts painted in contrasting colors. Some three thousand hours went into its construction. Accompanying the car was an electrically lighted flow diagram, explaining in fundamental terms the principle of the gas turbine engine. The car itself will have a permanent home in the Mechanical Department.

It would be impossible to thank individually all the persons and organizations connected with this effort, but we feel that two deserve special mention: The Rover Company, for their kindness in sending us the blueprints of the car, and Mr. John Coldwell for the time and effort he expended in the machine shop on our behalf.

C. J. McMANUS, Chairman.

#### **Electrical Exhibit**



Electronic control of power was the achievement of the electrical class of 1954. Their exhibit used the pitch of the orchestra music to vary the color of the stage lighting.

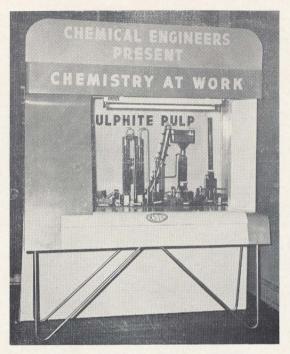
Starting with an idea; research, design, and development were carried out on the electronic circuit. Audio pick-up from the stage mike, amplification, three frequency selective amplifiers for filtering, and rectification gave three d.c. output signals whose amplitudes were proportional to the level of the base, mid-base, and treble notes of the orchestra. These d.c. signals were combined with phase shifted a.c. to give vertical control of six thyratron power tubes supplying power to stage lights. Blue lighting was varied with base notes, red with mid-band frequencies, and yellow with treble.

All in all, absolute, complex and continuously varying control over six thousand watts of stage lighting was accomplished, an effect seen for the first time in Halifax and only once before in Canada.

D. E. BURKE, Chairman.

EDITOR'S NOTE: The effect produced by this exhibit cannot be appreciated from the above picture, but can only be appreciated by actually seeing the system in operation.

#### **Chemical Exhibit**



This year the Chemical Class presented a process for the production of Sulphite Pulp.

The exhibit differed from the usual process of presenting a chemical process in that it showed all working models of the equipment on a horizontal plane, with lettered placards to depict the name and use of each component, rather than the usual representation in which the working parts were superimposed on a flow diagram in the vertical plane.

The general layout of the plant consisted of two lines of processing converging into a third by which the raw materials, wood, sulphur and limestone were converted into finished pulp. The first line contained a barker, chipper, chip screen and chip storage for converting the incoming pulp logs into graded chips. The second line contained a sulphur burner, sulphur dioxide cooler, acid towers, reclaim tank and acid accumulator for converting the raw sulphur into sulphite liquor. The two lines converged at the digester to continue on in a single line representing the operations of screening, thickening, bleaching, washing and drying to produce the finished pulp.

The outstanding features of the exhibit were the brillance of colour, the numerous moving parts, and the realistic bubbling action of the acid towers and digester which were activated by nitrogen gas.

E. C. BARRETT, Chairman.

#### Mining and Metallurgical Exhibit



The exhibit of the Mining and Metallurgical Society consisted of a large timber head frame, underground workings, an operating model of a stamp mill and a mineral display. The head frame contained two shafts, with a cage running up and down in one and a skip car in the dump position in the other. From the bottom of the shaft an underground tunnel was extended, containing a railway complete with diesel mule which pulled several ore cars and a car for transporting pit-props.

A large working model of a stamp mill was exhibited, showing one of the processes used in crushing ore at it starts along the way to the various extractive metallurgical processes. This type of stamp mill was at one time in common use in Nova Scotia when the gold mining industry of this province was at its peak.

As an interesting sidelight each guest was given a small sample of ore, which could be tested at the exhibit for radioactivity with a geiger counter of a type used in the field by prospectors. The prizes which were given out were small pieces of ore containing flake gold, mounted in clear lucite.

A touch of beauty was added to this exhibit by an attractive display of minerals mounted on a revolving table; shown under ultra-violet light these minerals showed brilliant fluorescence.

The final touch of this diversified display was provided by Bob "Hard-Rock" Jay, who was present at the exhibit, appropriately dressed in miners gear, complete with hard hat and lamp, and who explained the working of the mine, and tested the minerals for radioactivity.

E. C. MacNEARNEY, Chairman.

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#### The Year In Review

by S. Reid Giffin

The last days for the graduating class come nearer and nearer to an end and in view of this fact, it is well to reflect on some of the year's activities; mostly extra-curricular activities. The study end of life at N.S.T.C. is well known to all and in future years will be remembered only too well. However, it is the other activities that are apt to grow dim in the memory as the years roll by, whereas if a permanent record is available, the acts of the class of '54 can be recalled and "mulled over" into the wee hours of the morning by two or three of its members whenever and wherever they may get together.

With somewhat the same monotony came registration. Those students about to complete their formal training, scanned the faces and physiques of those who were to move up to within one year of the goal, as they entered the door of their new Alma Mater, the "Lady Hamilton". Passing remarks of recognition were extended as one met one from the old school or home town.

To relieve the feeling of any excess class rivalry, the graduating class held a smoker for the juniors at the Sea Gull Club. Here they were introduced to student life at Tech, such as the functions and methods of the Student Society, flying fish were prevalent at the time, and the product of a leading Halifax firm.

The feminine atmosphere passed from the scene this year as the Tech Wives' Club ceased its activities. The abolishment of the Tech apartments was the controlling factor in the club's demise, but it is to be hoped that the ladies may convene next year, if only to give "hubby" that Tuesday night free.

On October 30th, all were called by the social committee to "trip the light fantastic", at the Lord Nelson Hotel. The dance was carried out in true Tech fashion, the married students being given a chance to show that "they too could be happy even though married". This attitude seems to be spreading as there was a steady and ever increasing number of individuals who graduated from bachelorhood throughout the year.

On November 21st the Geology Societies of the Associated Universities combined with the Mining and Metallurgical Society of N.S.T.C. to hold a day-long convention at Tech. Several speakers discussed varying topics pertaining to mining and geological works, and the meeting was concluded with a very enjoyable banquet held at the Sea Gull Club.

The common-room was perpetually busy, with ping-pong, darts, bridge and that other time-consuming monster—hearts. Card games did not seem to be left to the common-room this year, as every drafting room and "lab" had its share of cards—much to the professors' dispair.

Christmas exams . . . . Well? There were some good parties after them though. Enough said.

The holidays passed and everyone arrived back in Halifax with resolutions typical of the New Year season: "This time is going to be different", "No more taverns", "Never again will I get behind in my assignments", "Do it now", all imbedded solidly upon mind and soul. Yet we knew that the Tech Ball was only a few weeks away—two strikes against us already. Immediately the resolutions were altered to simply: "Well, I'll start in earnest after the Ball".

If a layman had happened into these famous halls of learning at any time of the day or night during January, he would have found many of the "boys" hurrying to and fro, engaged in much speculation, some doing calculations over a drafting board and in general looking as though the weight of the world was upon their shoulders. Yes, the various faculties were more than busy getting their exhibits ready for the Tech Ball. These exhibits got done but it was not before 6 p.m. of the night appointed for the gathering together of the lads and lassies for the affair.

The Social Committee received many bouquets of thanks for the Tech Ball, but it is only proper that thanks be extended to the behind the scene workers. Tech students realized that without the time, the plans, and the diligent work of all students enrolled, the Tech Ball could not possibly be "THE" dance of the year. The efforts of all those who assisted in every way possible were rewarded with the total success of the dance, in the words of a campus personality; "cool man, cool."

March 26th brought forth the boys from the books for another dance at the Lord Nelson Hotel. The attendance was large, all made "whoopie", Saturday was lived through, and in short we enjoyed it. With only a week's rest until April 2nd, we were called to the final general social activity, the junior smoker. All the loose ends were tied together and the parcel of activities put away until next year.

At the present, all we have to look forward to in college are exams, the iron rings, and then, ah yes, the Senior Dance. In conclusion, may I speak for the whole of the class when I state that we are more than appreciative of the guidance that our good friends the professors have given us in the past two years. That also, we shall remember for the rest of our days.

May things always go well with the College, with the Faculty, and with the whole of the Class that departs this year.

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Back Row—C. R. F. Powell, E. C. MacNearney, L. L. Centa, C. J. McManus.

Absent-K. E. VanVliet, L. D. Matheson.



TECH FLASH STAFF

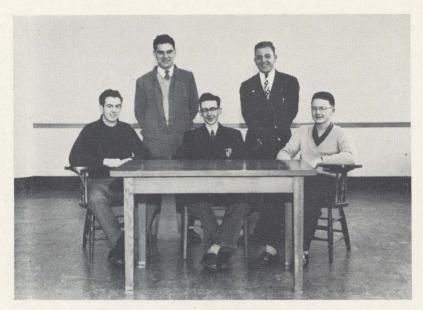
Front Row—S. R. Giffin (Circulation Mgr.), J. M. MacLeod (Editor), J. B. Pierce (Business and Advertising Mgr.)

Back Row—J. C. Campbell (Asst. Business and Advertising Mgr.), D. G. Lordly (Asst. Editor).



ATHLETIC COMMITTEE

J. H. Conway, E. C. MacNearney (Chairman), D. D. Fodd.



SOCIAL COMMITTEE

Front Row—C. S. DeLory, C. J. McManus (Chairman), D. E. Burke. Back Row—D. St. C. Melanson, R. W. Kenway (Retired Chairman).



#### FOOTBALL TEAM

Front Row-D. V. Crowe (Asst. Mgr.), R. B. Swansburg, N. E. Pullin, L. L. Centa (Capt.), J. C. Gorman, C. R. Carson, V. E. Vaughan (Coach).

Back Row—F. M. Power, S. C. McPhee, D. E. Webster, W. A. Clarke, R. A. Jay, G. H. Martin, R. M. Fisher (Mgr.), C. S. DeLory, K. E. VanVliet.

Absent—J. J. C. Picot, D. St. C. Melanson, G. G. Hines.



BASKETBALL TEAM

Front Row—A. H. Roy, P. G. Napier, F. A. Villela, A. R. Murphy (Capt.), H. R. Whitehead (Manager), G. B. Weld.

Back Row-R. G. Messenger, R. B. Swansburg, R. G. Cooper, (Coach), D. E. Webster, C. R. Carson.
Absent—C. P. Brennan.



VOLLEYBALL TEAM

Front Row—R. W. Kenway, B. R. Wile, H. M. Tomlinson (Mgr.), J. E. Hillier.

Back Row—N. E. Pullin, R. G. Messenger, D. P. Andrews, R. G. Cooper, A. M. Osorio,
D. A. Kean.

Absent—l. Silgailis.

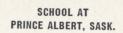


TENNIS TEAM

P. G. Napier, J. A. Scriven, J. E. Hillier (Mgr.)

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#### The Year In Sport

By H. R. Whitehead

In the 1953-54 season Tech's sportsmen were not quite successful but they had a lot of fun and what's more important they played the game.

Tennis led off with a six college tournament at U.N.B., Jimmy Scriven starred in singles placing second. Paul Napier and John Hillier paired for the doubles and likewise placed second. This fine showing placed them in a 3-way tie for leadership in the men's division. Since the championship is awarded for the total of men's and women's points, Tech dropped to second place. Dal girls swept their field for 4 points thus bringing home the cup. Alas Tech has no girls.

The football team, being of high caliber, entered the Intercollegiate league and in spite of their defeat had the satisfaction of never allowing an opposing player to cross their line. They lost to Acadia who beat them in one game by penalty kicks and held them to a scoreless tie in the return game. Tech lost no other game all season.

Outstanding for Tech was Capt. Lou Centa who played consistent, hard, clever ball all season. K. E. Van Vliet entered the play late in the season due to an appendix operation, but showed tremendous drive particularly in his brilliant tackles. Gorman, in the scrum, performed heeling well worthy of note as the ball came out of the Tech end of the scrum a good majority of the time due to his efforts. Don Webster's tackling was a predominate feature of Tech play. In fact the whole team was well worth their fans' admiration.

The dart team got into the spirit of things or should I say vice-versa. Regardless of how it was, they put up a fine showing paced by durable Lennie Martell and Capt. K. E. Van Vliet but couldn't quite make it. Lennie was particularly outstanding both for his ardent conditioning and the fact that out of nine trips to the mark he came through with eight spectacular wins. The team's most glorious evening was the occasion when they met Phi Kappa Pi and trounced in turn every individual on the team.

The hockey team had plenty of drive but unfortunately lost all their games this season. The team showed spirit and love of the game by turning out before 7.00 in the morning and after 11.00 at night for practices and should be commended for their efforts. Particularly outstanding were Capt. Lou Centa, Moose Wile, Plug MacNearney and Stan McPhee. As usual an interfaculty league was enjoyed by all and at the time of publication no winner had been decided.

Badminton saw Tech competing in a seven college league. Jim Scriven was outstanding for Tech winning all his singles matches but one and that to U.N.B. This gave him second place. The doubles team of Lloyd Moores and Tom Devereaux did not do quite as well but defeated King's and St. Mary's. They placed third in the tournament. Again we lack the girls.

Basketball, like football, was knocking on championship's door but it just wouldn't open. The regular league play ended with Dal and Tech tied for first place, each having lost a game to the other. A sudden death game was played to see who would play off with the third-place R.C.A.F. team in the semifinals. Tech lost to Dal by 3 points and so met the airmen and downed them two straight, 71 - 65 and 61 - 48. In the finals Tech lost to Dal two straight, the first game by 4 points, and the second by 2, both games being very close.

Outstanding for Tech was the guarding by Capt. Reid Murphy and Ross Carson while Gordie Weld shone at centre aided by Rae Swansburg and Tony Roy on wings. Thanks go to Rollie Cooper for his able direction. The interfaculty league was resurrected this year after being dormant for a while and the mixed team of Chemicals, Met and Miners walked away with the trophy.

At the time of writing volley ball is only half way through their heavy schedule and have a 50-50 chance of making the play-offs with a present score of 11 points out of a possible 18. Outstanding to date are Capt. Max Tomilson and Snapper Kenway.

That is Tech's sport record for the year with the exception of the boxing team who trained but entered no competition.

#### Awards

The Athletic Trophy, symbolic of outstanding sportsmanship, leadership and athletic ability, was awarded this year to Louie Centa.

"Big Lou" directed his talents towards Rugby and Hockey where he was at all times the driving force behind the team.

Since arriving at Tech, Louie has served as Captain of every team he played on, and has provided at all times top-notch performances of sport the way it should be played.

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STAN McPHEE	Athletic
JIM SOY	Athletic
KEITH VAN VLIET	Athletic
REID GIFFIN	Athletic
HUGH WHITEHEAD	Athletic
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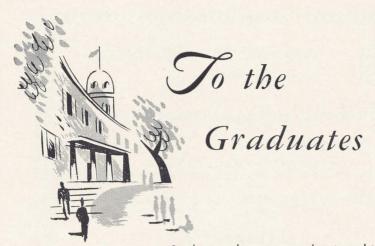
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