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Viewpoint: Human Rights in the Engineering Curriculum*

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Besides discussing some human rights issues affecting all academics, this paper makes the general case why it is specially important to teach human rights to all engineering students. Examples from Sri Lanka, deeply rent by a civil war, are used to show that in divided societies where it is most needed to teach Human Rights, it is also the most difficult to teach it because of the sensitivity of the subject. The curriculum is described and the resources are shown to be widely and easily accessible. Experience in compulsorily teaching human rights to engineers for the first time is shared. As a secondary benefit, in stratified societies where students are reluctant to participate in class, a controversial subject like human rights that animates, proves useful in encouraging discussions and improving communications skills.

BACKGROUND: THE ENGINEER AND SOCIETY

A *New York Times* editorial at the close of the last millennium says '. . .the ideal of universal human rights . . . is one of the most important political legacies of the century' [1]. But many of us would wonder what engineering education has to do with human rights. Indeed, engineering, if we look at its definition, has everything to do with human rights. All definitions of engineering as a profession and all engineering faculty mission statements will directly or indirectly touch on offering the best solutions to engineering problems in the service of mankind. Although we engineers, broadly, see ourselves as problem solvers who create artifacts and objects to serve humanity, successful engineers invariably end up as managers of some sort. With this view, traditionally, engineering curricula have always had a humanities component. Indeed, the highly acclaimed engineering program at Harvey Mudd College, Claremont, CA has about 30% of its curriculum based in the humanities, perhaps the highest proportion anywhere. We have always taught some law, contract negotiations, labor relations and so forth to engineering students and indeed, many professional institutions will not recognize a degree program that does not give this broad perspective to its students. ABET's criteria for accreditation of engineering programs requires 'a general education component that complements the technical content' [2].

This writer has in the late 1980s and early 1990s taught a course titled *The Political Economy of South Asia* at Harvey Mudd College, Claremont, CA, which contained a significant component of human rights including the idea of political asylum reinforced through field visits to US Immigration Courts in Los Angeles where he regularly gave evidence as an Expert Witness in Sri Lankan cases. But it was an optional course.

Having moved to Sri Lanka, where society is far more divided than in the US, the need compulsorily to teach human rights to engineers was strongly felt. In Sri Lanka, as conceded by successive governments which have all promised in their 'throne speeches' to address the grievances of Tamils, the Tamil minority has been discriminated against and is seeking a separate state from the majority Sinhalese. This demand is now pushed through means of terrorism by a segment of the Tamils [3].

The general reasons for teaching human rights were evident within the university community itself. As everywhere, to use loaded terms, the good and the bad existed side by side. For example, in the 1983 conflagration that precipitated the present crisis in Sri Lanka [3, 4], an attempt was made to cleanse the university of any Tamil presence. In one incident, 300 Sinhalese students were found assaulting a single Tamil boy in a hall of residence. As the committee of enquiry appointed by the university's Council, representing the good side, pointed out, instead of calling in the police to arrest the 300, the boy who was badly injured was handed over to the police as a suspected terrorist [5]. Representing the bad side, no disciplinary action was taken and the recommendations of the committee ignored.

A complex issue in Sri Lanka involved whether:

a) a competent academic can teach effectively to a class consisting of minorities about whom he holds and disseminates seemingly virulent view;
b) a competent science educator has the right to hold and express freely his political views,

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however offensive they might be to a minority of his class;

c) however competent such a scientist might be, student grades issued by him can be defended by the university as above-board.

In that issue the university system effectively said such a person cannot be a teacher, but a more recent case shows the swing away from sensitivity to minorities. Here some senior academics had written to the Leader of the Opposition on how he may seemingly (but not really) support the Tamil demand for decentralization and trick the Tamils into voting for him. The academics argued that doing as they suggested would not really advance the cause of decentralization but serve to embarrass the government and their advice was duly followed. Later, however, their letter got leaked during party crossovers [6], but evoked little shock or even a discussion on the academics' ability to treat fairly sections of their students they felt free to manipulate.

These human rights issues do not face Sri Lankan academics alone. To place things in a wider, non-local context, in the mid-1980s the University of Pennsylvania dismissed a professor who publicly espoused views insulting to blacks and inimical to their dignity. In Germany it is forbidden by law to question even in an academic setting whether the holocaust happened or not. These issues then surely are seen not to be local.

The need for teaching human rights in a more engineering context has arisen in Sri Lanka in the matter of national security versus rights. In recent cases Tamil engineers and student trainees have been denied access to their work-places managed by engineers. It is argued that all terrorist acts are by Tamils and therefore they cannot be allowed inside sensitive engineering organization. Even the Deputy General Manager of the Ceylon Electricity Board was locked out of his own power station on grounds of his being a Tamil. By the same token, when engineering students are sent by this university for industrial training, the Ceylon Electricity Board and Sri Lanka Telecomm (both sensitive state conglomerates seen as terrorist targets) these national agencies routinely send the Tamil students back. In an even more egregious instance, Tamil trainees were kept out of a power station and asked to copy the diaries of their Sinhalese classmates so as to show that they had been trained and thereby pass the requirements for graduation. (Here the intention might have well been benign in trying to get these students to pass the industrial training component of their degree program.) Because the Electricity Board usually does not offer employment to Tamils, the university's Power Engineering Program is no longer attractive to Tamil students unless they really love the subject. The situation with telecommunications is ameliorated by the presence of private providers.

As a result of all this the best training slots are not available to Tamil students. And consequently, training being a gradable graduation requirement, the teaching programs of the Faculty are tainted and not equally available to all ethnic groups. Thus outside society's communal biases come to infect an Engineering Faculty that has tried to be communally sensitive.

A more complex issue requiring sensitivity involves the medium of instruction. In Sri Lanka by law everyone studies up to high school in the mother tongue. Then in professional faculties like engineering, there is an over-night switch to English. For rural students not fluent in English this is a horrendous experience. In this milieu, it is not unusual for instructors to switch suddenly to the majority language in class to communicate a difficult point. This leaves members of the minority Tamil community in class even more in the dark than if English had been used.

These raise important questions to a university. Is teaching affected by the personal relationship between the teacher and the student? Can a class debate the truthfulness of a widely accepted fact when such questioning is offensive to a community? Can national security over-ride the freedoms on which a society is founded? Indeed can a university watch as national security concerns undermine its commitment to justice and equality? To explain more clearly to the majority in class can the minority be excluded? These must be debated in an academic community but are not. Only a sound understanding of human rights and the principles on which they are premised can inform that debate.

At a time when this need to teach human rights was strongly felt, the Secretary General of the UN, Kofi Annan, last year challenged world business leaders to 'embrace and enact' what he called the Global Compact involving human rights, labor and the environment [7, 8]. In response, and using the opportunity, at the University of Peradeniya, all B.Sc. Engineering students specializing in computer science get a broad treatment of human rights and our obligations through a catch-all core-course in the final year that teaches many topics that were not covered elsewhere but are required for a rounded training as an engineer. It is, we believe, the first attempt compulsorily to teach human rights to undergraduates in Sri Lanka and to engineering graduates anywhere.

HUMAN RIGHTS AND THE ENGINEER: URGENT AND SPECIAL RELEVANCE

Having explained why human rights is relevant in a broad sense to engineers and indeed all graduates, early in this article we would like to grapple directly with why human rights is urgently relevant to the engineer in a very real specific way involving special situations. Be it noted that since engineers are professional managers of technology and manufacturing organizations, whatever is said here will equally apply to a business school.

Because respect for human rights is a legal obligation, it is here argued that teaching human rights is merely an extension of the present practice of teaching domestic law to engineering students. Indeed, as remarked at the 31st Study Session of the International Institute of Human Rights (3–28 July 2000) by Prof. A. A. Cancado Trinidade, Judge President of the Inter-American Court of Human Rights and of the University of Brasilia, compartmentalization into national and international law is passé and no longer tenable in the light of the domestic applicability of human rights laws. Moreover, since human rights obligations devolve upon us through not only national law but also international covenants and treaties, engineers with an ever-increasing transnational practice, need to be familiar, *a fortiori*, with their human rights obligations.

These general arguments aside, the urgent necessity of engineers being aware of their human rights obligations is brought to the fore by nine arguments based on real-life scenarios that an engineer may face. The training of engineers must therefore prepare them for these nine scenarios.

NINE SCENARIOS FOR ENGINEERS TO BE IN HUMAN RIGHTS SITUATIONS

1) Productivity

An engineer interviews candidates for jobs, among whom is a less qualified relative or member of the same ethnic group. He hires the kinsman. Productivity goes down because i) the employee does not produce as well as the others who might have been hired and ii) the organization's commitment to excellence is vitiated and other employees stop working hard since they no longer see it as the route to career advancement. This takes away the engineering organization's commitment to serve society as best as it can and, particularly if the organization is government, there can be additional repercussions through human rights court action since 'States-Parties' are the players in international covenants, and therefore have increased liability.

2) Product label

The term 'product label' is used to imply the mental image conjured up in our minds when we hear the name of a company. It is not necessary to name companies where employees are well treated. The better companies have a good product label. Given equally attractive employment offers from two companies, we would tend to choose that company with the better product label. How we hire tells on our product label and this in turn affects who applies to work for us. Mary Robinson, the UN High Commissioner for Human Rights (and previously President of Ireland) gives several good reasons for being a good company; a good citizen in the world of commerce [8]. All her reasons have to do with earning a good product label.

A further importance of product label is that we all tend to buy the products of companies with better labels assuming them to be good even if we have never tried them before. With consumer sophistication, the campaign against Nestlé (where salespersons dressed as nurses persuaded African mothers to switch from breast-feeding to Nestlé's powdered milk) reveals how damaging bad publicity can be to a company; likewise, Nike's experience with its manufacturing plants abroad [9]. In recognition, companies like BP, Nike, Reebok and Levi Strauss have developed an open set of well-publicized Codes of Conduct [10–13] and some even hire independent consultants to report on their own compliance [14]. Amnesty International also has come up with its Human Rights Principles for Companies [15].

Such consumer sophistication as in the Nestlé and Nike episodes where consumers have launched effective boycotts [16, 17] demands that any responsible engineer in charge of a company be careful. For instance in the manufacture and sale of rugs, an industry marked by the use of child workers, the Rugmark Foundation (a voluntary group of self-regulating companies located at 733 15th Street NW, Suite 920, Washington DC 20005) offers its own label to manufacturers who subscribe to human rights standards with no child labor; and many sophisticated consumers will buy only those rugs with the Rugmark to earn which a company has to go through inspections and reporting to the Rugmark Foundation. So marketing is now tied up to human rights compliance and promotion.

A close-to-home example of where poor hiring practices hurt an organization is the Sri Lanka Aid Consortium faulting the Government of Sri Lanka for, among other reasons, not having enough minorities in positions of power. For instance, the Ministry of Higher Education's diary for 2001 [17] lists the important officers of the Presidential Secretariat, the Prime Minister's Office and the Ministry. There is one minority way down in the Ministry's list; and none in the other two. As a result, the aid pledged for 2001 at the meeting in Paris in late 2000 fell from the annual US$800 million or so to nil! The government's poor product label, sadly, has cost this country billions of rupees in funds so important for development.

3) Operating in war-zones

As happens to this writer and any of us on a trip into the war zones in Northeast Sri Lanka, soldiers stop us and ask for rides or even for us to drop off lunch packets from the main camp at the next sentry point down the road. It is all rather casual and usually without coercion. We tend to oblige. As individuals it is up to us to decide how to respond. But an engineer heading an organization ought to be aware that giving rides to combatants takes away the protected status accorded by the

Geneva Conventions [18, 19] and unnecessarily risks members of his staff.

Again consider the many cases where, in the name of security, the forces have displaced the populations living round them and planted 'friendly populations'. In this connection, engineering organizations have been asked to deepen harbors and build model villages with housing, water supply, etc. (in the north of Sri Lanka and especially in the highly contested east). But the shifting of populations, besides being a violation under the Geneva Conventions, is a war crime under the proposed International Criminal Court (which will come into being once the required number of countries have signed the agreement) [20] and to get involved in that makes the engineering organization also an accessory, particularly for reasons mentioned below under 7 (foreign courts). Similarly engineers called upon to manufacture weapons of destruction ought to be very familiar with the Geneva Conventions. While some weapons (such as shells whose shrapnel is not easily detected in the body) are totally prohibited, others such as poison gases have only their use prohibited, while yet others like nuclear weapons are interpreted as having only their first use prohibited [18]. The fact that most electrical engineers in the US work directly or indirectly for the military, makes this aspect very pertinent.

4) World Bank impact assessment

When the Mahaweli River in Sri Lanka was diverted in the 1970s with World Bank assistance, engineers could do anything. Large populations were displaced and houses and even temples inundated. The World Bank then funded anything saying politics was taboo for them according to the Bank's charter [21] although (according to the personal testimony of Mme. Boisson de Chazoumes, Professor at Geneva and previously a high-up at the World Bank) it continued to deny loans to Iran and fund projects in Zaire even though Iran had significantly better economic performance indices). But under increased consumer pressure, now all World Bank projects are open to scrutiny. Provision must be made in all projects for Social Impact Assessment (including how the environment and indigenous populations are affected) and for scrutiny by the World Bank Inspection Panel [22]. Thus the recent Chinese project to transfer ethnic Chinese into Tibet was scuttled after the Inspection Panel made its report [23]. The Narmada Dam project in India [24] is in deep trouble for similar reasons. Engineers must therefore now be aware of the impact of their work and must be able to assess that impact and make plans that uphold human rights or their projects will be in trouble. A Sri Lankan engineering example is the Southern Highway project that has been on in fits and starts because of environmental and displacement issues raised with the foreign funding agencies.

Recognizing that a lot of their funds end up in wrong hands, the World Bank also has corruption elimination and poverty alleviation as high priorities for funding, both tied up closely to human rights and good governance. And therefore NGOs devoted to advancing human rights use these World Bank priorities to scuttle projects that are antithetical to the new ethos. The planning of large projects by engineers, as a result, must be undertaken understanding the impact of the projects, if the plans are ever to take off.

5) Liability through partners

With increasing globalization, many companies do business with local partners. While our own organization might be clean, our local partners might be employing child- or slave-labor. A classic example is from Burma where child labor is routinely used in addition to prison labor. Although our own company's hands may be clean, we can be held liable when our partners violate these standards. For example, in a US case in 1999, a judge declared himself competent to hear an alien torts claim filed by Burmese nationals against Unocal and Burma claiming that a Burma-Thailand pipeline project violated international law by using forced labor. According to Prof. K. de Feyter of Maastricht, speaking at the International Institute for Human Rights, the fact that the US courts have agreed to hear the case concerning an alleged offence in Burma is significant, even though they dismissed the part against Burma on grounds of state immunity. Levi Strauss' Code for its partners is therefore seen as highly enlightened and makes interesting reading [13].

An interesting class-assignment is to discuss whether a country is in violation of its obligations under the Convention on the Elimination of all forms of Discrimination Against Women or CEDAW [25] when it accepts grant aid from Japan International Cooperation Agency (JICA) with severe and indeed unacceptable restrictions on women with regard to participation in training programs unless specified conditions on pregnancy are agreed to. Poor countries like Sri Lanka, although with an excellent record on women's rights [26], are tempted to ignore their human rights obligations under CEDAW because to do otherwise would be very costly.

6) MFN, GSP status

According to international agreements, competition is supposedly free. But under the Most Favored Nation (MFN) status and the Generalized System of Preferences (GSP), special quotas and reduced tariffs are allowed. Often these are tied up to human rights clauses. New Zealand in particular is well known for tying up MFN/GSP for its trade partners to their human rights record. Thus an engineering firm in, say, the free trade zone into textile manufacturing that violated child labor or other standards, can jeopardize the

MFN/GSP advantages of the country and sensible governments would require engineers to be aware of these considerations.

In recent times the GATT/WTO regime has begun to question the legitimacy of these preferences but they still remain and have not been properly ruled upon. Until this changes, engineers need to be mindful.

7) Liability through foreign courts

Traditionally domestic law was made through parliament and the Foreign Minister (or Secretary of State) was engaged in signing treaties that historically applied only to states. With the Laws of Geneva and The Hague and especially the events of the second war, human rights obligations have entered into agreements between nations. Thus individuals for the first time have become the subject of international treaties.

Recently foreign ministers by signing treaties and conventions have been signing into law what normally would not have passed through our domestic legislature. (The US process is more complex since even after the Executive signs a treaty it needs to go through other devolved centers of power like the Senate. Thus many treaties signed by the executive still do not have the force of law.) Examples of legal obligations taken on by Foreign Ministers by-passing local legislatures are the International Covenant of Civil and Political Liberties and its Optional Protocols that allow individuals in a state that is party, to complain directly to the UN High Commissioner for Human Rights. The concept of War Crimes and Crimes against Humanity with no statute of limitations or limits of jurisdiction, makes certain crimes in a country potentially chargeable in foreign courts. In the US too, an old 18th century alien torts claim law designed to collect damages from Englishmen has been successfully used in recent years to charge an Ethiopian general and others for rape, torture etc. when they were visiting the US.

The setting up of the new Criminal Court under the Rome Agreement will probably make crimes in a country even more easily prosecutable abroad. Under this, for the first time, the head of an organization (as opposed to the organization itself) can be charged in an international court. For all these reasons engineers need to be more legally savvy about how their businesses impact on human rights and their own broader culpability even when their domestic Attorney General's office may be sympathetic to whatever they do.

8) Business in international law

Globalization has made businesses as important as, if not more important than, governments [27]. Compare the GNP of Norway and Thailand of around US$160,000 million with the sales of multinationals like GM at US$164,000 million. Kofi Annan's call to business [7, 8] is rooted in this fact.

Thus we have come full circle. In the days of the Dutch East India Company, companies made treaties (as that company did with the 'Emperor of Candy and his Grand Officers') and Grotius a founding father of international law and the author of the Law of the Seas, worked for that company. Then we went to the days when only states were the players in international law. Now companies are again responsible and taking over the obligations of states. A clear example is Ecuador which, when oil was discovered in the rain forests, asked Texaco and other companies to negotiate directly with the indigenous people for drilling rights. Are engineers trained for this increased responsibility involving human rights and environmental protection?

9) Child labor laws

Child labor laws are complex but increasingly enforced and therefore it is all the more important for engineers to understand them.

The complexity stems from the differences between two classes. The first innocuous class might involve a twelve-year old in the US selling newspapers a few hours of the day, and an Indian boy helping out at the family shop after school. The second class involves the enormity of child labor as reflected by:

- a Thai child working in a brothel;
- a Sri Lankan Tamil boy or girl of 12 conscripted into the militancy to 'man' the front-lines
- Sri Lankan boys being used in the pedophile tourist industry.

Unfortunately the whole debate gets fuzzy and politicized with Westerners pushing child rights and nationalistic others defending child labor by citing cases such as of an American teenager working for MacDonald's over the Summer or saying that it is Western tourists who use poor countries for molesting boys.

Indeed it is because the issue is as loaded as it is fine that it is important to distinguish between the classes of child labor. It is important to know that the standards are country-dependent. Under ILO Convention 138, the age limit in general is 15 (but 14 for developing countries); at the same time for light work like delivering newspapers, it is 13 (but 12 for developing countries). But that is not all. For hazardous work (such as military work) it is 18. For teaching purposes however, the full text of ILO Convention 138 [28] and case-law need to be consulted since fine nuances such as work at sea, what is a developing country, what is hazardous work, etc. are involved.

Engineers therefore must be able to rise to their higher responsibilities and be trained accordingly.

THE CURRICULUM AND RESOURCES

The curriculum largely consisted of three components:

1. international human rights law (as in the International Bill of Human Rights) [29, 30], international humanitarian law (the four Geneva Conventions and the two additional Protocols thereto [18, 19]) and the ILO Conventions [28];
2. their application to engineers;
3. some interesting cases under the African Charter [31], developments in the European Court of Human Rights and the Inter-American Court of Human Rights, and their implications to creating a decent society.

The material is easy to personalize for teaching purposes since it is so very vast to be too much for one course. It is also easily accessible since Human Rights is high on the agenda of many world organizations and active NGOs. As a result free material is widely available. The Internet is another quick and easy source as this author found, as attested by the several Internet references given below.

The materials not so easily available are from the Inter-American Court and the African Court, the latter being even less accessible. Some journal articles and books are available [32, 33] but unless the engineering faculty belongs to a university system these may not be so easily accessible. While it is tempting to make up a course without this material, it is just not feasible for engineering teachers in Africa and the Americas to teach human rights without treating parts specially relevant to them. Moreover, the American material is rich in that the court has been very bold in making new ground (for example, the idea of damage to a person's 'project of life'—i.e., future plans—in giving satisfaction to Loayza Tamayo against Peru). And the African material challenges the importance of the individual in Human Rights by interjecting the idea of peoples' rights. The creation of new websites such as the one at the University of Minnesota [34] is helpful but much of the available material is still in Spanish. With African decisions, the material is even more difficult. It is this writer's experience that direct requests to universities in South Africa, such as the Centre for Human Rights, University of Pretoria, bear fruit.

LOOKING BACK: CREATING A DECENT SOCIETY

The course has gone well. Personally the most enjoyable part was the lecture on the creation of a decent society by contrasting a home where a servant is treated like a crook and searched every day as he or she leaves after work with another where a choice is made to trust the servant and being prepared in the process possibly to lose things through theft. The choice is between: i) being a decent person not suspecting someone who might be honest and ii) being a nasty employer who subjects even honest servants to indignities but in the process protects his home. It is a situation that all Sri Lankan students are familiar with. When the students agree that the first is the proper choice, the parallel to a society suspecting everyone from a particular community in a time of civil war is drawn. How Sinhalese troops at check-points suspect Tamils, and Tamil militants the Muslims in the North, based merely on their ethnicity, are examples all students in Sri Lanka are familiar with. Instances even closer to the students in class are the Ceylon Electricity Board and Sri Lanka Telecomm refusing to recruit Tamil engineers or take on Tamil students as trainees on the mere grounds of their being Tamil.

At this point the McCann et al. case from Gibraltar [35] is described to highlight that there is a cost to creating a decent society. In that case three known IRA terrorists were followed by the SAS and shot to death. The European Court faulted the UK for not taking sufficient measures to protect the 'right to life' of these known IRA terrorists by arresting them at other opportunities they had when the risk to the lives of the terrorists was minimal.

Students see the choice that is ours to make: between a decent society with costs and a risk free one where not all are included.

DIFFICULTIES, EXPERIENCE AND SECONDARY BENEFITS

Sri Lanka of all countries needs human rights as no other country does. But it is in countries where human rights is a big issue that it will be the most difficult to teach it because it is so sensitive to deal with it. And in divided societies where the writing of history itself becomes a matter of politics in the service of ethno-nationalism as shown by Gunawardana [36] and Hoole [37], teaching recent and ongoing history involving violations can be hazardous and intellectually dangerous for a university's reputation.

Conservative faculties have therefore been reluctant to authorize the teaching of human rights because it is so politically loaded—so much so that depending on who teaches it the course can be so different. Unfortunately Human Rights is a tool in the service of private agendas. For example, Sri Lankan Tamils who rightly decry real Sinhalese atrocities are blind when Tamil atrocities on religious and caste minorities within the Tamil community are pointed out. Sinhalese, even some Marxists, who are loud about the evils of colonial hegemony, are unsympathetic to Tamil aspirations for self-determination (as guaranteed by Article 1 of the International Covenant on Civil and Political Liberties [38] that Sri Lanka is signatory to). Likewise Tamils wanting self-determination for themselves through outright separation are totally opposed to Muslim desires for a mere province of their own. On the international front too, the US attitude to the World Court on

Nicaragua and the uneven funding priorities through the World Bank to Iran and Zaire, show that Human Rights is used as a weapon. So also the changed British attitude to the Kurds in Iraq whom they gassed when they were ruling and then criticized Saddam Hussein for doing similar things.

The challenge in teaching Human Rights (particularly to a class of mixed and divided ethnicity as this writer had to do) is to teach it neutrally without upsetting any one community. It was decided to take the bull by the horns and deal directly. As a topic was taken up, it was awkward to watch a part of the class from the violating community looking sullen while the other part seemed gleeful. It was a course being taught for the first time. So students were tense not knowing what the instructor was going to say. This was reversed by dealing with violations of the other side. The ice was finally broken by going for a moot-court where human rights cases from outside were argued by the engineering students. Summaries from the European Court of Human Rights were used. The majority Sinhalese students were asked to take on the individual's case while a Tamil was asked to argue for the state. Such courts became relaxed as students broke into laughter as the arguments were made and became a place for making new friendships—between students and students, and, uniquely for this part of the world, teacher and all his students.

The gaiety generated was also an opportunity for opening up new and sensitive topics for discussion. Why is it that those who have studied together for four years still do not know the names of all their batch-mates from the other community? Why is it that the vast majority of students who talk to this writer after class are from his community, the Tamil community? This writer also learnt something from the answer that one student gave: 'It is because Tamils can talk to you in Tamil while we Sinhalese have to speak to you in English.'

In a stratified society like Sri Lanka's, that a student should be able to say that to his '*guru*' shows how successful the course has been even in introducing intellectual equality between the instructor and his students. Typically in Sri Lanka, Singapore and like places where this writer has taught, students rarely question the instructor and are unlikely to answer when the instructor asks a question. Developing communication skills in students has always been difficult as a result. But not with this course. It is this writer's view that this course has produced a new kind of graduate, confident, expressive and outspoken. Such discussions for such a divided feudal society as ours would not have been possible without first convincing the class of the value of human rights. Though of secondary benefit, this gain alone justifies the reduction of technical teaching to make way for human rights.

All 20 students in class agreed that they truly enjoyed the experience of following the course.

CONCLUSIONS

Human rights has been successfully taught. The rationale and curriculum for, and the problems in teaching human rights have been identified. It has been an exciting experience for both the teacher and the students. As a teacher usually teaching 'hard' engineering, it has been an eye-opener to how skills in communications make a whole person and how much we neglect those skills in the engineering class. In fact a case can be made based on this experience for engineering educators getting involved in such teaching. It has also been shown how many issues of rights come up in educational administration and why the resolution of these issues must be informed by a commitment to human rights.

Teaching with a team of cross-cultural teachers (as we tried to do) will foster discussion and is something to be encouraged to preserve the universality of what is taught as much as to demonstrate and proclaim the fairness of the teachers. After all, the universality of the humanity in all of us created equal in the image of God is the lynchpin on which respect for human rights is asserted.

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